UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK

UNITED STATES OF AMERICA, STATES OF ARIZONA, CONNECTICUT, IDAHO, ILLINOIS, IOWA, MARYLAND, MICHIGAN, MISSOURI, MONTANA, NEBRASKA, NEW HAMPSHIRE, OHIO, RHODE ISLAND, TENNESSEE, TEXAS, UTAH AND VERMONT,	)	10-CV-4496 (NGG)
	)	United States Courthouse Brooklyn, New York
Plaintiffs,	)	
-against-	)	
AMERICAN EXPRESS COMPANY, ET AL.,	)	TUESDAY, JULY 29, 2014 9:00 a.m.
Defendants.	)	

TRANSCRIPT OF CIVIL CAUSE FOR BENCH TRIAL
BEFORE THE HONORABLE NICHOLAS G. GARAUFIS
UNITED STATES DISTRICT JUDGE

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Proceedings recorded by mechanical stenography, transcript produced by computer-assisted transcript.

(In open court.)

THE COURT: Please be seated.

COURTROOM DEPUTY: Case on trial.

Lead counsel state your appearances, please.

MR. CONRATH: Good morning, Your Honor. Craig Conrath for the United States.

THE COURT: Good morning.

MR. GENTILE: Good morning. Mitch Gentile for the plaintiff states.

THE COURT: Good morning.

MR. CHESLER: Good morning, Your Honor. Evan Chesler for American Express.

MR. FLEXNER: Good morning, Your Honor. Donald Flexner for American Express.

THE COURT: Good morning, everyone.

Before we begin with the next witness, is there anything from either of the parties?

MR. CONRATH: Nothing from us, Your Honor.

THE COURT: And your expectation on the length of your witness's presentation?

MR. CONRATH: I'd predict between five and six hours, Your Honor.

THE COURT: Five and six hours, all right.

Okay. You may call your witness.

MR. CONRATH: Your Honor, the United States calls

Professor Michael Katz.

May I approach, Your Honor?

THE COURT: Yes, you may.

(Professor Michael Katz enters the courtroom and takes the witness stand.)

THE COURT: Should we have a sidebar?

Sure. Let's have a sidebar.

Please take the stand. We'll be with you in a moment. This gives me an opportunity to...

(Sidebar.)

(Continued on next page.)

(Sidebar conference held on the record out of the hearing of the public.)

MR. ORSINI: I just want to protect third party confidentiality information. One of the gentlemen in the jury box is an American Express employee. I know that there's third party confidential information in the binder that Mr. Conrath has. So I just wanted to remind Mr. Conrath it probably shouldn't go to the American Express executive.

We have no objection to him being here, I just wanted to make sure we have the confidentiality.

MR. CONRATH: Thank you.

THE COURT: Thank you, very much. Thank you, everybody.

(Sidebar end.)

(Continued on following page.)

(In open court.)

THE COURT: Thank you, Mr. Orsini, for making this possible.

MR. ORSINI: You're welcome, Your Honor.

COURTROOM DEPUTY: Please raise your right hand.

MICHAEL L. KATZ,

called by the Government, having been first duly sworn, was examined and testified as follows:

COURTROOM DEPUTY: Please state and spell your full name for the record.

THE WITNESS: My name is Michael L. Katz, it's M-I-C-H-A-E-L L K-A-T-Z.

DIRECT EXAMINATION

BY MR. CONRATH:

Q Good morning, Professor Katz. I'm going to start today by letting the Court know about your academic and professional background.

If you could, would you open your binder in front of you to Tab 1, PX-2703.

What is PX-2703?

A Well, I don't have an exhibit number on it, but I'm guessing you're looking at my curriculum vitae.

Q Yes, that's correct. To make it easier to discuss your background for the Court, we'll use this as a guide.

Does PX-2703 describe your academic and professional qualifications?
A Yes, it does.
Q What is your current academic position?
A I'm the Sarin Chair in strategy and leadership at the Haas School of Business at the University of California at Berkeley where I'm also a professor of economics.
Q Have you taught anywhere else?
A Yes, I've taught at Princeton and also at N.Y.U.
Q And what did you teach at N.Y.U.?
A I taught in the business school. I taught competitive and corporate strategies to the MBA's, and then I thought an economics and strategies course to graduate students.
Q What is your field of academic research?
A My principal field is industrial organization.
Q And what is industrial organization?
A It's the study of competition and how it's affected by particular structures of industries and markets.
Q Have you heard people sometimes use the term "antitrust economics"?
A Yes, I have.
Q And what does that mean to you?
A So, it's the study of competition. There's a high degree of overlap with industrial organization, but it's focusing particularly on questions relevant to antitrust enforcement.

Q Have you published in the fields of industrial organization or antitrust economics?
A I published in both.
Q Is there a list of your publications at the end of your CV in PX-2703?
A Yes, there is.
Q I'm not going to go through those, but if we look at the most recent ones in the last few pages, I see there's some non-academic publications there like a 2012 paper for the Kansas City Federal Reserve Bank on "Increasing Connectiveness in Consumer Payments."
Could you describe that for us?
A So the Kansas City Fed asked me to present paper -- prepare a paper for a conference they were having on the future of the payments industry, and because they knew me both because of my work on payments and also work having to do with mobile telephony, they asked me to prepare a paper thinking about the intersection of those two and how future technological developments would change the payments industry.
Q So you write for non-academic audiences as well as for academic audiences?
A Yes, I write particularly for policy audiences and practitioner audiences in some cases.
Q Is there an area of your research that people would say you're best known for?

A Yeah, I'm best known for my work on network effects.
Q Has any of your work involved the analysis of vertical restraints?
A Yes, it has.
Q Can you give us some examples?
A Well, I mean, one thing I did is I wrote a handbook chapter where I was asked to summarize the state of knowledge about vertical restraints at the time. More recently, I wrote a back chapter analyzing a particular antitrust case which involved vertical restraints and then as part of that talking about the general theories of economic theories that were relevant to that analysis.
Q Moving outside of your academic work, Professor Katz, your CV notes that you were chief economist at the Federal Communications Commission from January 1994 to January 1996; is that correct?
A That's correct.
Q And what were your responsibilities as chief economist of the FCC?
A So there were two really when I went. One was just to build up the economic staff and the capabilities of the agency, but then because they were just being built up, my job personally was also to make sure there was good economics in all of the major decisions that the commission reached. So I was there to advise the commission.

Q You also served as deputy assistant attorney general for economics in the Antitrust Division of the Department of Justice from September 2001 to January 2003; is that right?
A That's correct.
Q And so I note your phrase included the title "attorney general," but you weren't an attorney, are you?
A No, that's correct.
Q So what were your responsibilities as deputy assistant attorney general for economics?
A Well, there was to lead a well-established staff of economists, but again it was to oversee the use of economic analysis in support of antitrust analysis.
Q Have you worked on competition policy issues with government agencies in other countries?
A Yes, I have.
Q And can you give us an example of that?
A So I had several engagements for the Reserve Bank of Australia having to do with credit card regulation and also debit card regulation.
Q Aside from your work as an academic and in government, have you been involved as a consultant on antitrust matters?
A Yes, I have.
Q Have you been involved in antitrust cases involving the credit card industry?
A Yes, I have.

Q And what was that?

A So the case, the shorthanded view of U.S. v. Visa having to do with the exclusionary rules that Visa and MasterCard had were aimed at limiting competition from American Express and from Discover and then also had another feature known as duality that they were not truly independent competitors.

Q And did you provide testimony during that trial before the district court?

A Yes, I did.

MR. CONRATH: Your Honor, at this point, I'd like to offer Professor Katz as an expert in economics.

THE COURT: Any objection?

MR. CHESLER: No objection, Your Honor.

THE COURT: All right. The witness is designated as an expert in economics.

MR. CONRATH: Thank you, Your Honor.

BY MR. CONRATH:

Q Professor Katz, were you asked by the Department of Justice to review certain provisions in the agreement between -- agreements between American Express and its merchants?

A Yes, I was.

Q And can we refer to those provisions as the anti-steering rules?

A Yes.

Q Did the department ask you to consider whether the anti-steering rules adversely affect competition?
A Yes, it did.
Q And did you reach conclusions about whether they do?
A Yes.
Q And please tell the Court the principal conclusion that you reached.
A So my central conclusion is that the anti-steering rules harm competition and consumers, and consumers in this case means merchants and their customers.
Q Can you explain how the anti-steering rules harm competition?
A Well, fundamentally, I think a way to see it is ask what would happen if a credit and chargecard network was thinking about lowering its prices to merchants. Now, the reason it might do that is it would expect to get additional business, right. That would be the reward for lowering its prices would be the additional business.
Now, in the absence of anti-steering rules, what you'd expect to have happen is that some merchants would say well, now that this is cheaper for us, let's steer our customers, let's encourage them to use the cheaper credit card network and that would be the reward for lowering the prices, but in the presence of the anti-steering rules, the merchants are limited from doing that. So there's less substitution

towards the network that's lowered its prices. Therefore there's less of a reward for lowering prices, there's less of an incentive to do it, so it's dampening or thwarting competition. It's taking away the award for competing harder.
Q Can you give me an example?
A Yes. As we'll see in a few minutes, the Discover network is an example of that where they had a strategy where they were going to be lower-priced than other networks. That was predicated in part on merchants steering their customers to Discover, and when Discover learned that that wasn't going to happen because of anti-steering rules, Discover changed its strategy and stopped trying to be particularly low-priced to merchants.
Q Did you also consider whether the anti-steering rules have procompetitive effects?
A Yes, I did.
Q And what conclusion did you reach about the procompetitive effects?
A I considered several different theories, but I considered that when you sort of looked at the facts of them, that none of them generated significant procompetitive benefits and that none outweighed the harms I found earlier.
Q Before we talk about the rules further, did you prepare a slide deck that will help us walk through your analysis?
A Yes, I did.

Q All right. So could we turn to Tab 2 of the binder in front of you, which is PX-2702?

MR. CONRATH: And, Your Honor, if we can, I'm going to have to go back between public screen and non-public screen periodically, but we'll start on the public side. So I'll apologize in advance for calling on you to perform that gatekeeper role.

THE COURT: We're starting with the public screen?

MR. CONRATH: With the public, yes.

THE COURT: All right.

(The above-referred to exhibit was published.)

BY MR. CONRATH:

Q Is this your slide deck, Professor Katz?

A Yes.

Q Next slide, please.

Could you tell the Court the framework you will use to explain your expert opinions in this case?

A Yes, and this slide outlines that framework.

So there's three broad steps in the approach I'm going to describe today. The first one is to identify the key economic features of the industry which is to say learn about the institutional details of the industry, how competition functions and works in this particular industry because that's going to give us the context for understanding how the rules potentially affect competition either adversely or favorably.

Q And what's the second set?
A So then the second step was to assess whether there are adverse competitive effects.
Q And what's the third step?
A And then the third one is to see if they're procompetitive justifications or procompetitive effects.
Q Could you explain why the middle step is divided into two approaches?
A Because there are two alternatives for conducting that middle step.
Q What is the actual adverse effect approach?
A So the actual adverse effect, and sometimes it's just what it says, you look to see the actual effects. It's an approach you can use when, as here, the conduct at issue has already taken place. So you can look at market facts and look at industry participants' behavior and try -- and look for direct evidence of what's happened and how the practices, you know, here the anti-steering rules, how those practices have affected competition.
Q And what is the market power approach?
A The market power approach is an indirect approach to get at the same source of questions, but you go through a different process to find relevant markets and then assess the market power that the firm whose conduct at issue, you know, assess whether it has significant market power, whether it has

sufficient market power that its actions could harm competition, and then you look for likely adverse effects within that framework.
Q And why are there two approaches?
A Well, because the first approach, one reason why it's good there are two approaches is the first approach is something you can use where the conduct's already taken place. The second approach is useful in something like a merger where the harms you're worried about are in the future. You're saying after they merge there's going to be less competition, so you need a way to predict what's going to happen. You want a framework for that. So the market power approach is very useful when you're looking forward.
Q Which approach did you take here?
A I took both approaches.
Q And did you reach the same or different conclusions when applying these approaches?
A I reached the same conclusion because they're really doing the -- trying to do the same thing.
Q And what was that conclusion that you reached?
A Is that there are significant adverse competitive effects from the rules.
Q And why did you do both approaches?
A It's really belt-and-suspenders because you can look in this case as the direct evidence of what's happened in the

past, but it's also useful to use the market power approach because you can bring in additional evidence, bring in direct evidence to help resolve the questions here.

Q Let's start with discussing your analysis on the first step. Could we turn to the next slide, please?

So what are the first of the key industry characteristics that you identified?

A I guess we'll turn to the next slide, if we could.

Q And if I mess up on the slides, you just tell me and we'll pick up.

A All right. So the first one, and something we'll come back to and talk more about, is just -- if it's okay, I'm going to refer to them, at some points at least, as credit card networks rather than credit and chargecard networks, just to shorten things.

But the first thing is that the credit card network industry is a concentrated industry, there's a small number of major suppliers, and what this chart is showing is who they are and how big they are and giving some sense of their relative size. And so what it's showing if you look along the bottom is the number of years going from 2001 to 2012 and then on the side it's saying -- it's showing you these are the networks measured by their purchase volumes, and what you can see from this is that Visa has consistently been the largest network, they're the red line at the top, and that in the

recent years American Express, a blue line appropriately enough, the blue line is showing that American Express is now the second largest credit card network, followed by MasterCard, and then significantly smaller than that is Discover.

So one thing to note is there are only four competitors and three of them are much larger than the other one, and so that's going to raise questions about just how competitive this industry is.

Q So that dip that occurs in 2008/2009, what's that?

A That's the Great Recession.

Q Next slide, please.

Did you identify other key characteristics of the industry?

A Yes. A central feature of this industry is the credit card networks are two-sided platforms, which is to say that they're middlemen between merchants and their customers, and what this diagram is doing is showing you that while the network is the middleman, there are also other parties involved.

Q All right. And what do these boxes labeled "issuer" and "acquirer" represent?

A So you can see the network is in the middle and I've shown in parentheses underneath an example of the network of course would be Visa, as we were just saying. If you're a

customer, a cardholder, you don't deal directly with Visa. You deal with the bank that issues your credit or chargecard, in this case the example is Citibank. So card issuers are just what the name suggests: they issue cards to the customer, they manage the customer relationship and the billing, and they serve as an intermediary between the network and the customer.

The acquirer is doing the same thing for the merchant, and First Data is one of the largest, probably the largest acquirer, and so they service the bank for the merchant and they serve as the liaison between the merchant and the network.

Q What functions do networks perform as middlemen?

A So the most fundamental function they provide is to have a set of protocols and procedures and standards that allow all these parts to work together. They also do things like they run communications networks to let them go together. Then in a different vein the important thing is they do branding. You know, Visa is one of the best known brands in the world. American Express is certainly a well-known and respected brand. They also set prices and they also set rules such as the anti-steering rules.

Q Why do you say a network is two-sided, the platform is two-sided?

A Because its business is to bring together two different

sides. Its business ultimately is to facilitate transactions between merchants on one side and their customers on the other.

Q Who are the consumers of network services in this diagram?

A Both merchants and customers are consumers of the network services.

Q So you're saying merchants are consumers?

A Yes, for these purposes. And that's one thing, again I'll try to be consistent in my terminology and say customers, but I'm sure at some point I will slip into also using the term "consumer" to mean households and individuals, but for the technical economic purposes, merchants are consumers.

Q You've written about network effects.

What do network effects mean in the context of this industry?

A So a network effect generally is when the more people consume a good or service, the more valuable it is to consume it. The classic example being the telephone network, that the reason you have a phone is so you can call other people.

Well, in this industry the way it works is, think about it from the customer's perspective, why have a credit and chargecard is so you can use it, and for you, the more merchants there are on a particular network, the more valuable that network is. So that's a positive network effect where

the customers look at the number of merchants. Similarly, if it's a card that -- if you're a merchant, you think about well, why would I carry a -- you know, why would I accept a credit and chargecard network's cards? It's basically lots of customers want to use it. So you have it going both ways: customers want to be where merchants want to be and merchants want to be where the customers are.

Q So in this slide you're looking at, you use Visa as an example of a network.

Does this slide also describe American Express's relationship as a network with its merchants and customers?

A It does describe American Express's relationship as a network, but with American Express there's some further complications.

Q Okay. Could we have the next slide, please?

What does this slide show?

A Well, this is showing the further complications because while American Express does make use of third parties, just like in the previous diagrams, for example Wells Fargo issues American Express cards and First Data serves as an acquirer for American Express, the bulk of American Express's charge volume goes in-house. It's a -- the largest issuer of credit and chargecards and it's also a large acquirer. So it's integrated into the other functions.

Q All right. Can we have the next slide, please?

What's the next key feature of the industry that you identify?

A Well, this is a feature that really follows from the fact that the credit and chargecard networks are two-sided platforms and what it's showing is the fact that the choice of what payment instrument gets used for a transaction is a choice that's made jointly by merchants and their customers, that the merchant initially chooses which payment instruments to accept, the merchant decides whether or not it will take checks, whether to accept cash, debit cards, credit cards, which brands, and then when the customer comes in to the store, say at the point of sale, the merchant may engage in steering depending on if its allowed, depending on what the merchant's preference is for that, but then the customer ultimately chooses what gets used because the customer's going to look and say well, here's what the merchant accepts, I'll pick which one I want to do. So it's important here that it's both the merchant and the customer are making the decision. So to understand how competition works here, we have to understand what the merchant wants to do and also what the customer wants to do.

Q Is the customer's preference the only factor driving merchants' decision on whether to accept credit cards?

A No. I think it's fair to say it's the major factor, but merchants certainly take into account the cost too, both what

they have to pay, but also things like what are the training costs. For large, sophisticated merchants, they worry a lot even how quickly the payment instrument gets used at the point of sale, so they'll consider that. The merchants also consider whether there are particular aspects of quality that differ across payment instruments such as, you know, how quickly they get paid or whether there's good customer service.

Q So can we have the next slide, please?

And what does this next slide illustrate?

A So this is just showing as we go forward where the money goes when the merchant pays because one of the things to note, as this diagram will show, is when the merchants paying, the money's actually going to the three different parts that I showed you between the customer and the merchant.

So I've taken here is just a round number of three percent. So these numbers are just are broadly suggestive, these are not supposed to be actual market data. So take the example where a customer buys something worth a hundred dollars, pays the credit card bill a hundred dollars. The issuer receives that because that's where you send the money. The issuer then keeps what's known as an interchange fee, in the case of MasterCard and Visa, or it's also called in American Express an issuer rate. So in this case, you see that while the issuer gets a hundred dollars, the issuer only

passes on 97.50. That $2.50 difference is what the issuers keep and that's the payment to the issuer for maintaining the customer relationship, for having attracted the customer in the first place. Then the network passes on the money to the acquirer because, remember, the acquirer is the merchant's bank, and you see here that the network has kept 30 cents for itself and those are the network fees. And then finally the acquirer passes the money on to the merchant, but in this example, the acquirer has kept 20 cents for itself. It's called processing fees. They also have other names with them, but often you're going to think those are the acquirer's fees. So you can see then ultimately the merchant gets $97, that $3.00 difference being the so-called discount.

Q So if I understand the chart correctly, in this example, the interchange fee or issuer rate would be about $2.50?

A That's correct.

Q And is it generally the case that the interchange fee or the acquirer rate comprises the bulk of what the merchant pays?

A Yes.

Q The merchant discount?

A Yes, that's true.

Q And who sets the interchange fee or the issuer rate?

A It's set by the network.

Q And does the network get to keep that fee?

A No, the network doesn't, and that's an important thing to understand in thinking about the pricing in this industry. It's basically something you can think of as being passed through by the network where it's -- think ultimately how the money is going, it's passed through by the network from the merchant side, from the acquirer to the issuer.

Q Can we have the next slide, please?

Summing up, what are the key features of the credit card industry that we should remember as we talk more about it today?

A So as we just saw, there's a small number of networks. We want to keep that in mind in assessing competition. It's going to be really important to think about the fact that merchants and their customers are jointly deciding which payment instruments to use. In fact, I mean that's what steering is all about is the interaction between the two sides in order to make that joint decision. And then the other thing to do is that the principal reason that merchants accept credit and chargecards is because that's what customers want because in terms of cost, merchants generally find credit and chargecards to be one of the most expensive or the most expensive payment instrument to accept and in general the reason they're doing is because that's what their customers want.

Q Can we have the next slide, please?

Professor Katz, once we've identified these key features, what's the next step in the analytical framework that you're walking us through?

A Well, as I said, the next step is to assess the adverse competitive effects and this is where there's two different approaches, and as indicated on this slide, the one I'd like to start with today is to talk about the actual adverse effect approach.

Q Next slide, please.

What is the actual adverse effect or effects on competition that you'd like to talk about today?

A So there are going to be three that I'd like to talk about this morning. So one I already mentioned is that the fact that merchants were blocked from steering, that impeded Discover's ability to compete on the merits using the strategy, it was a low-price strategy, it was low-priced to the merchants so we will see also they certainly saw themselves as offering high value to their customers.

Second thing I want to look at are examples of preference campaigns and how those induce substantial substitutions, so it shows that steering can matter and it also shows that it can trigger competitive responses so that the steering was beneficial.

And then the final one I'll talk about very briefly, because it's something we'll come back to later today to talk

in much more detail, is value recapture by American Express which is a set of targeted price increases, and the point I'd like to make here is that the anti-steering rules resulted in value recapture being more profitable than it otherwise would have. So there was less pressure to hold price down than there would have been absent the rules.

Q Let's go over all three of those one at a time.

Can we have the next slide, please?

What happened with Discover?

A What happened? Well, the first thing is Discover entered the market in 1985, mid-'80s, and going along for several years and then what started to happen -- first of all, I should say what their strategy was. They wanted to come in and they saw themselves as offering something that offered particular value to merchants. They had although for the merchants a low-price strategy, but as the quotation on this slide is emphasizing, they also did things to be attractive to cardholders and they were pioneers in cash back rewards and, as I said, things like no annual fees. So they came in and that was their strategy.

Okay, then if we could turn to the next slide. What happens, so they had -- they came in with that strategy, and then in the late '90s, what was happening is Visa and MasterCard started raising the rates to merchants, and American Express at the time already had higher charges to

merchants, and so what's being captured in this long quotation, which I will spare you my reading of, is that Discover saw this as an opportunity, because what they saw happened is, okay, everybody else is getting more expensive, we're not going to follow them up as they do that and this will be our chance to gain share.

Q All right. Can we look at the next slide, please?

A Okay. And as you see, because that was from, that quotation was from a speech in 1999, I put this next slide up just to show, and I apologize it's hard to read, but this is the best copy I could get a hold of. Remember that speech was in 1999, so it's on the left side of this diagram and it's just to show that indeed MasterCard and Visa were raising their rates. The speech mentioned there had been a price increase in the previous year and the year after that, and in fact as you see, they were going up at that time.

Q So the bottom two lines on this chart are the MasterCard and Visa rates; is that right?

A That's correct, and then what it's showing on the vertical axis is their discount rates.

THE COURT: Is this a public document?

MR. CONRATH: This was I think confidentiality had not been claimed on this slide, as I understand it.

Is that right?

THE COURT: That's fine. I'm just checking. Go

ahead.

BY MR. CONRATH:

Q Next slide, please.

A Okay. So what happened, as I said, is the prices were going up to merchants, and Discover saw this as an opportunity and so what they did is they reached out to merchants. The earlier quotation was from a speech doing that. The excerpt here is from a letter that was sent out to merchants and pointing out to them, look, they have -- it says the response to Visa and MasterCard, but it's referring to their having increased their prices. It says look, we want to work with you, you know, here's ways to do it. And it's just one thing to note here that this is just as an example of it, it says we've enclosed signs to display at the point of sale. But fundamentally, the strategy was to get merchants to steer their customers to Discover and then that would be Discover's competitive reward, if you will, for having given the merchants a good deal.

Q The next slide, please.

Was this strategy successful?

A No, it wasn't.

Q And explain what's on this slide about why that strategy was not successful.

A So what we've identified here is that a central reason it wasn't successful is, as I say, it was predicated on the

merchants were going to -- Discover thought they would have this better deal for merchants, merchants would steer their customers to Discover, Discover would gain sales, gain market share. Didn't happen. They didn't see much of a response, as this quotation of earlier testimony in this trial is describing. They didn't see much of a response, and when they looked into why, when they talked to merchants, the merchants said well, we can't steer because we're blocked by anti-steering rules.

Q So what did Discover do with its low-priced strategy when it realized that merchants couldn't steer to it?

A It moved to a different strategy and it's moved to a strategy much more of pricing similarly to Visa and MasterCard, which we'll see on the next slide.

MR. CONRATH: Could we switch the monitor at this point in time?

A Okay.

THE COURT: Go ahead.

Q So now if we could have the next slide.

A As some of us can see, so again, I don't think it -- well, maybe it's in the old days they didn't have very good technology for copying this. Again, I apologize, it's hard to read the slide, but if you look along the bottom, I think this part is not confidential, you see it's broken out into the low cost provider strategy and when they say closed competitor gap

and then the breakpoint between those is 1999 which is when that speech was made and when this initiative occurred, and so what was happening is Discover had been going along, and I describe this in general terms, their prices had dipped and come back some, but then when they saw that that initiative didn't work out at that breakpoint, you see they then just steadily increased their prices to merchants following that because that's when they abandoned the strategy of trying to be a particularly low-priced network to merchants.

Q So what has been the effect on merchants and customers as a result of Discover abandoning its low price strategy?

A Well, so as a result of that, merchants are paying higher prices for the use of Discover cards and presuming for the use of other credit and chargecards as well because now there's less pressure on the pricing there, and then that means that an economically rational merchant is going to pass those higher costs on to its customers, and even though it may be difficult for anybody to perceive that because it's a small amount for any one customer, that adds up ultimately to substantial amounts of money. So customers ultimately are paying more at the merchants and that includes people who use credit and chargecards, but it also includes people who don't use them.

Q So is it your opinion that the impeding of Discover's low-cost strategy by the anti-steering rules adversely

affected competition?
A Yes.
I just want to be clear about one thing. When I say -- when you say the rules, the anti-steering rules were in effect at the time. So were the MasterCard and Visa rules. So my testimony is that those rules at this time collectively did it, but it's also certainly my conclusion that had it been the anti-steering rules of American Express, the rules, been in place by themselves, they would have had this effect.
Q Next slide, please.
And this is public, Your Honor.
(The above-referred to exhibit was published.)
Q Do you think that Discover would use steering strategies in the future if the anti-steering rules were lifted?
A Yes. At trial earlier, Mr. Hochschild from Discover testified to that extent and that's what this quotation is showing. It said that if merchants could steer, that Discover would return to having this price strategy of lower prices to merchants in order to give the merchants incentives to steer and certainly Discover would hope to get them incremental volume which would make the lower prices profitable.
Q And is that consistent with economic principles?
A Yes, it is.
Q In what way?
A It's really in a sense he's saying -- he's saying what I

said earlier at the outset when you asked me how is competition harmed. It's because the lack of steering reduces the gains from lower prices and so he's saying it the other way around: if we brought steering in as a possibility, that would increase our incentives to lower prices and we would do it.

Q All right. Professor Katz, the second example you mentioned was preference campaigns.

Can we turn to the next slide, please, and can you tell me what a preference campaign is in the credit card industry?

A So a preference campaign is where the credit card network will have an initiative where it will encourage merchants, sometimes I think just by asking them, but they also could provide financial rewards, encourage them to express a preference for a particular brand of credit card and in particular express that preference to the merchant's customer either advertising or at its point of sale.

Q Could you tell us about the specific Visa preference campaign that's described on this slide?

A So it's probably the most famous preference campaign, the "We prefer Visa" campaign where they encouraged merchants to supply signs at the merchant's premises. They would say "We prefer Visa," so they're expressing the preference. And as part of encouraging merchants to participate in the campaign,

Visa highlighted to the merchant that they were cheaper from the merchant's perspective than was American Express and at the time also that American Express apparently had slower payment turnaround times to the merchant.
Q What were the effects of this preference campaign on merchant and customer behavior?
A So it had significant effects on -- it led to share shift and particularly share shift away from American Express to Visa, sometimes in the double digits.
Q Did American Express respond by competing?
A In part, yes. So they, as it says here, allocated resources to merchant outreach. They made promotional investments of their own in advertising, and they also considered as a response reducing merchant discounts for some merchants. So they considered a price response.
Q Were these forms of -- these forms of response by American Express to Visa's "we prefer" campaign a form of competition on the merits?
A Yes, I think that's exactly what they were.
Q Have other credit cards networks also engaged in preference campaigns?
A Yes. Well, in fact, at the time that Visa launched this American Express had its own preference campaign before Visa did and there's certainly been preference campaigns and preference relations since.

Q Would you consider the "We prefer Visa" preference campaign to be a form of competition on the merits?
A Yes.
Q And can you explain why? What was the effect on merchants and consumers?
A Well, again because what it's doing is they're saying, well, even if they don't offer any incremental rewards to the merchant, what it's saying to the merchant is we'll work with you to steer customers to what's the cheaper way of paying things. So there's a benefit right there. The other thing is there's benefits when the -- when the network, benefits to the merchants if the networks compete to have that preference relationship and they offer various financial incentives to the merchants.
Q Are you aware of an instance when MasterCard had a preference campaign with Travelocity?
A Yes, you said they had a preference relationship with them, yes.
Q Can we turn to the next slide, please?
What conclusion do you draw from the information that's on this slide?
A Well, the first box, the one on the left, and this is again from trial testimony earlier this month from MasterCard executive where she was saying that they had this preference relationship with Travelocity and then after pressure from

American Express they ended it, and the MasterCard executive indicated that then it had less of an effect, that they were less successful at shifting share and that the campaign was degraded. And so again it's saying it's a lessening of competitive pressure here as a result of this.

Q And is it consistent with economic principles, can you in light of economic principles evaluate whether it's likely that MasterCard would conduct similar campaigns in the future if anti-steering rules were lifted?

A Well, I mean, certainly they would have, as a general matter, they would have the incentive to do that, see a way, and in fact they've indicated in testimony, right, that they would be interested in doing it and that if their rivals did it, that that would put competitive pressure on them.

Q So is it your understanding that the anti-steering rules, to the extent they impede preference campaigns, adversely affect competition?

A Yes.

Q Next slide, please.

Professor Katz, the third item you mentioned under actual anticompetitive effects was value recapture.

What is value or was value recapture?

A So it was a set of -- it was a pricing and set of pricing initiatives by American Express where it raised its prices to targeted merchant segments.

Q And what is the connection between value recapture and the anti-steering rules?

A Well, as was alluded to briefly earlier, the anti-steering rules resulted in the charge volume or the demand for American Express's services being less responsive to the merchant discount, and when demand is less responsive to the price, in this case less responsive to the price charged to the merchant, that results in the profit maximizing price being higher. So that means, in this case, the American Express with the anti-steering rules in place has a higher profit-maximizing price, so it's telling us that had the anti-steering rules not been in place, American Express would have faced greater competitor pressures or greater downward pressures on its pricing that would have moderated the price increases.

MR. CONRATH: Could we switch the monitor, Your Honor, before we go to the next slide?

(Pause.)

Q All right. Next slide, please.

Professor Katz, did American Express assess the profitability of its value recapture of price increases?

A Yes, it did.

Q And did they do it separately for unmanaged and for managed merchants?

A Yes.

Q And what do those categories mean?
A So, managed merchants are those, as a general matter, they are larger merchants, they're the ones that are important enough to American Express that they get assigned a account representative.
Q And the unmanaged merchants are those that don't get --
A That don't and they tend to be the smaller ones.
Q Was American Express concerned about steering by unmanaged merchants, generally the smaller merchants?
A Yes.
Q And do they have a term for this?
A Well, they talk about, I mean, suppression and generally suppression in different American Express documents mean different things, but generally it's the concept of steering away from American Express.
Q Can you explain what you take from the document that is on the screen here on this slide?
A So the document is something where American Express was assessing the results of value recapture and assessing the profitability and the particular parts I've highlighted that I wanted to focus on and it shows that American Express was, in fact, concerned when they raised the price, they were concerned about losing volume, which is what you would expect, and when they looked at unmanaged merchants, there were two components of that concern.

So one, they realized that by charging higher prices that some merchants would stop accepting American Express and that's when they talked about incremental cancellations. So they determined a particular number, which I won't say, of the merchants, of the unmanaged merchants they thought were canceling because of the higher prices and then that had a financial impact which is shown in that number in parentheses which had to be balanced against the gains which is something we'll talk about later.

What's notable here too though is there's a second component of that where they talk about the break-even incremental suppression rate and what they're doing there is they're identifying a rate at which they say wait, if there's more steering than this, this will be an unprofitable initiative.

So they're taking both of those sources of demand response of this into account, and then what it's showing in the other box is they've concluded two things; one, that incremental suppression is difficult to measure. Remember these are small merchants, so it's hard for them to see what was going on, but they said that they were reasonably confident that they're not close to the break-even. At the end they said look, we're not sure what their -- their best assessment was that they were below that, but their takeaway point from here is that the possibility of steering and

suppression was something they had to look at and consider when thinking about is it worth it to raise price.

Q So this document we're looking at addresses unmanaged or smaller merchants. Now I'd like to ask about the larger managed merchants.

Did Amex keep track of how these managed merchants responded to the price increases associated with the value recapture initiative?

A Yes, they did.

Q Can we have the next slide, please?

What does this document show?

A Well, in some sense what it shows is what's not on there, and in that sense I need to say that this document is just a representative document of other ones telling a similar story, and if you look at the callout here, it mentions the ISSUE of retention or of losing merchants and it says in this case for this particular organization, which is part of American Express which deals with the very largest merchants, that in fact there were no losses, but it is something they were tracking and they were potentially concerned with and, okay, but in this particular case they didn't.

What's notable is there's no mention of any sort of incremental suppression or any concern with that and that's not surprising because they had the anti-steering rules in place, and then this document's also noting, as a result, the

value recapture was profitable.

Q And that's this particular element of value recapture, that amount on this slide?

A That's right, this particular one, and then if you look more broadly for managed merchants that they generally found that few, if any, dropped and I didn't see any concern with incremental suppression.

Q So in sum, how does Amex's ability to implement value recapture relate to the anti-steering rules?

A Well, had there not been anti-steering rules, one would have expected to see the managed merchants engage in incremental suppression and then American Express would have had to take that into account and when they asked themselves the question is it worth it to raise prices or will we lose too much business, there would have been another source of substitution away from American Express that would have been another source of competitive pressure to hold prices down.

Q All right. Could we switch the monitor again, Your Honor?

THE COURT: Public?

MR. CONRATH: Yes, to public.

(The above-referred to exhibit was published.)

MR. CONRATH: And can we have the next slide before we do? I'm sorry, I got that backwards. I apologize, Your Honor.

Q So looking at this next slide, is it -- could merchant steering have been used to respond to the value recapture of price increases?

A I mean, certainly it could have in principle and we would have expected it to have an effect, and what this slide is showing is that earlier at trial, an executive from Southwest is testifying that in fact had they had the chance to do it, they would have tried to use steering to, as he said, mitigate the price hike that they were getting from American Express.

Q And could merchant steering be used in the future if there were price increases if merchant steering were allowed?

A Certainly.

Q Next slide, please.

What do you conclude, Professor Katz, from these three instances of steering and price increases about the impact of American Express's anti-steering rules on competition?

A So the bottom line is that the anti-steering rules harm competition on the merits and they do so substantially, and we saw that with Discover where one of the factors when they were abandoning this strategy of being particularly low-priced to merchants in the face of the -- of anti-steering rules; saw it in the case of the preference campaigns and preference relationships that these things can -- that such relationships can be effective in moving share and that they can create and

do create competitive pressures and pressures to respond by competing on the merits; and lastly, value recapture is illustrating just sort of the detailed mechanism by which steering takes away one of the avenues of competition.

Q So you've told us that the anti-steering rules lead to higher prices to merchants.

Could the higher prices affect prices to cardholders on the other side of the platform?

A Yes, they could.

Q And in what way?

A Well, remember these are two-sided platforms. So we need to keep track of what's going on on the other side of the platform, see how these interact, and when -- when merchants are being charged higher prices, that can give the credit and chargecard networks incentives to then give lower prices to the cardholders. Think about it in terms of rewards because when we start talking about negative prices, at least I get confused.

So it works this way. If I'm charging the merchants more, gives me incentives to give bigger rewards to my customers. Why am I doing that? Well, because the higher rewards are going to get them to use their cards more, and since I'm charging the merchant more money, every time I succeed in getting my customer to use the card more, I'm getting more money. So economic principles will tell us that

if the networks are charging higher prices to merchants, some of that's going to get passed on to the cardholders.
Q So does American Express pass through all of the merchant discount that it collects to cardholders?
A No, they don't.
Q Next slide, please.
How do you know that?
A Well, one thing is American Express says so. This is a statement by their CFO, I guess this is an investor call or investor conference. I apologize, I can't remember which. But anyway, it's a statement by their CFO pointing out that they pass some of it on, but that they, as it says, part of it we drop to the bottom line, which of course there's nothing wrong with that, they're in the business to make money, but it is a fact they keep it.
It's also true if you look at data for their rewards expenses, that's something that there's some dispute among the economic experts in this case on the exact numbers, but I think there's no disagreement that rewards payments are well less than half of the discount rates, significantly less, and it's certainly my view that if you look at, and my conclusion, if you look at value recapture that when American Express raised the prices they were charging the merchants, they did not pass that through to cardholders.
Q What does economic theory tell us about whether a

network's higher prices to merchants resulting from anti-steering rules would be passed through to cardholders?

A So your question's bringing up is one of the things that when we talk about higher prices to merchants and what the effects are on cardholders, it depends in part on why the prices are higher and if the prices are higher as we're talking about here because the merchants' ability to respond has gone down. So one side of the market now is less responsive to price, that's why the price is going up to merchants, economic theory says the networks are going to keep some of that for themselves. They're not going to pass it all through because they're taking advantage of the fact that demand is less responsive to price, and so there's a clear prediction that that's what will happen. That in this particular case, there will be less than a hundred percent passthrough, and as I said, in fact the evidence indicates, there's less than a hundred percent passthrough.

Q So you've said that American Express does not pass through a hundred percent of the merchant fees to cardholders.

Assume that it were true that a hundred percent of the higher prices caused by the anti-steering rules were passed through to Amex cardholders, does that mean that merchants and their customers are not harmed?

And I think we need the next slide here.

A No, it doesn't. If you think about it, what this slide

is summarizing is that the anti-steering rules are going to raise merchants' costs, okay, first off for the reasons we talked about that there's less competition among credit and chargecard networks and also even taking the prices as given, even ignoring that aspect of generally raising charges to merchants, you've also got the thing that the rules stop merchants from pointing or steering their customers to cheaper chargecards or cheaper credit cards, okay, and those two effects then are going to result in the merchants having higher costs of accepting appointments and then they're going to -- an economically rational merchant is going to pass that on to its customers.

Now, exactly which ones it passes it on to depends on how much it engages in any sort of targeted discounting or charging different prices for different payment instruments, but generally merchants are charging the same price for everything. So what's going to happen is prices are going to go up with the merchant for everybody, including people who are not using American Express cards, and those customers are going to be worse off.

So for example, if you're somebody who is going into a merchant and you always pay with cash or you always pay with a debit card, you're going to be paying higher prices and the fact that some or all of the credit card users are getting rewards is not going to help you.

Q So Professor Katz, summing up on the actual adverse effect question, is it your opinion based on the actual adverse effect approach that the anti-steering rules have had an adverse and have an adverse competitive effect?
A Yeah, it's my conclusion that they have an adverse -- you know, they have had, as you said, an adverse competitive effect and that they continue the do so.

THE COURT: Professor Katz, in other places, Europe, Asia, wherever, where they may not have these anti-steering provisions in these agreements in those places that exist, is there evidence that at the place of sale there is a differentiation between the price for cash purchases and credit or debit card purchases?

THE WITNESS: So at a broad level, they're actually -- the distinction between cash and others, sometimes we see even in the U.S. because legally the firms have the right to do, and you see that often in gas stations, but the one I'm familiar with another country would be Australia where they allow very targeted steering.

And one thing I should distinguish between the United States and this case and Australia, Australia in fact allows merchants to put surcharges on particular networks, and in Australia merchants have used surcharges and the threat of the surcharges has certainly been seen to have had an effect on how credit and chargecards are priced. So they've been

very particular. They would say if you use this particular credit card, this is the price you're going to pay and if you use a different one it's this and if you use debit it will be yet another price. So they have made use of the targeting and the steering when they've had the ability.

BY MR. CONRATH:

Q Professor Katz, do you happen to know whether there's some version of the anti-steering rules for American Express in Europe or Asia?

A No, because sitting here -- I may know it, but not as I'm sitting here, I can't remember.

Q Professor Katz, does that complete your presentation of adverse anticompetitive effects using the actual adverse effect approach?

A Yes, it does.

Q All right. Next slide, please.

If we recall your diagram that describes your framework, is the market power approach an alternative method of analyzing adverse effects that could result from the anti-steering rules?

A Yes.

Q Next slide, please.

(Continued on following page.)

Q Can you provide the Court with an overview of the steps involved in implementing market power,

A Yes, that's exactly what this slide does. And we'll be walking through them, but our first step is to define the relevant markets; and then once we've done that, we'll analyze market power in that, the markets we defined in that framework, and then we'll turn to the last step of identifying whether competitive effects are likely, given the market.

MR. CONRATH: Next slide, please.

Q Let's talk about this first step. Were you able to define product markets in this case?

A Fortunately, yes.

MR. CONRATH: All right. The next slide, please.

Q What two candidate relevant product markets did you consider?

A I considered two candidates; the ones shown in the slide, the one that's a general purpose credit and charge card network services provided to merchants, to T and E merchants, which is travel and entertainment, in the United States. And then the other one was general purpose credit and charge card network services provided to merchants overall in the United States.

Q Did you conclude, based on your analysis that these two markets were well-defined relevant product markets?

A Yes, I did.

Q Do you understand that there's agreement among the parties here that the United States, as far as the geographic market of the United States, is a relevant geographic market?
A Yes.
Q That's not a matter of dispute?
A Yes.
Q Is there a generally accepted methodology used by economists to define relevant markets in antitrust cases?
A Yes.
Q What is it called?
A It's called the Hypothetical Monopolist Test.
Q Is it widely used?
A Yes, it is. It's widely used in court cases. It's also enshrined in the horizontal merger guidelines which are issued by the Department of Justice and the Federal Trade Commission jointly.
Q So before we get into the mechanics of the Hypothetical Monopolist Test, could you explain to the Court what fundamental economic concept the Hypothetical Monopolist Test seeks to capture?
A It's trying to get at the notion of what goods or services are reasonable substitutes, and it's giving us a structured way, to answer the question, about what makes the substitutes reasonable.
Q Why is it important to evaluate whether products are

reasonable substitutions for each other?
A Well, substitution is essential to understanding competition, because the way competition works suppliers of different goods are trying to get the buyers to substitute among them. And so then we've got this question, we want to understand substitution, and that's going to help us understand competition. But there are lots of degrees of substitution. You think about it, you know, bicycles and automobiles are substitutes. Especially, in San Francisco and New York, you take your life in your hands, in both cities. But if bicycle and automobiles are substitutes for some purpose for many people, but you wouldn't want to conclude competition from bicycles are stopping automobile manufacturers from raising their prices, while their substitutes are just not close enough. What we need is a way of deciding how close is close enough.
Q So what is the goal of the Hypothetical Monopolist Test?
A Is to answer that question, is to have a way of saying, well, which substitutes do we need to include, because those are essential to understanding competition and which we hold aside. They still may be substitutes and they still may have some effects, but we don't have to include them in those relevant markets to get an assessment of what's happened.
Q Can you give the Court an example of how the Hypothetical Monopolist Test might be used?

A For example, if you had two beer producers that were going to merge, you would want to know what relevant market they're in, and you might observe that wine and beer clearly are clearly substitutes for many people; and you'd want to ask the question, then, well, are wine and beer sufficiently close substitutes it would put them in the same relevant market. Or should we conclude that beer alone is the relevant market, and that could give you a the different view of the affects of that merger, because you would be wondering, well, how much competition would the merging parties be getting from elsewhere.

Q Is the relevant market supposed to include all of the substitutes for a given product?

A No, and that's why the Hypothetical Monopolist Test is to help us draw the boundary. But it's important to recognize that when you do the Hypothetical Monopolist Test, first off, you're not trying to put everything in. And, second of all, when you do it, it doesn't mean that you should exclude from your analysis considering the effects of what's outside it. In particular, when you're looking at actual market outcome -- actual market outcome is nobody saying, well, this is the boundary of the market, therefore, we're going to somehow do something different. So when you're looking at market data, you're sort of automatically seeing both what's going on in the market, but any outside influences are also going to be in

your data analysis.
Q So you said earlier that, for example, wine is for some people or, in some sense, a substitute for beer. Does that mean that beer and wine belong in the same relevant market?
A No, that by itself is not. You'd have to go through and do an application of the Hypothetical Monopolist Test in order to determine whether they're close enough substitutes.
MR. CONRATH: Can we turn to the next slide, please.
Q How does Hypothetical Monopolist Test work?
A Okay. So this slide is going on set out the mechanics of it. We start with a Hypothetical Monopolist, hence the name, or you can also think of it -- it's sometimes called a hypothetical cartel. And the idea is monopolist or cartel controls the candidate set of products, and then we ask the question, well, if that Hypothetical Monopolist existed, would it be profitable for that monopolist to impose -- and this is a term much beloved by economists, snip -- a small by significant and non-transitory increase in price above the competitive level.
So will the monopolist find it profitable to raise the price above the competitive level? And if the answer is yes, then those products constitute a relevant market. If the answer is no, then you've got to look for something still brooder. And the thing about it -- the reason why this is a sensible way to do it is what we're saying, look, if a

Hypothetical Monopolist controlling these products could raise price -- and that's why it has these caveats about significantly and not just for a day. But if it could raise price significantly, that tells you that competition among these products really matters. And if the competition among these products is harmed, it can result or will result in higher prices. And so what it's getting at, then, is saying how many products do we have to consider to understand when competition among them really matters.

MR. CONRATH: Could we turn to the next slide, please.

Q Could you explain for uses how the Hypothetical Monopolist Test applies to credit cards numbers?

A Okay. So what I've done here, on a slide, is shown the step you start with, with the candidate market, where you say let's consider, and we said the candidate market is going to be credit card network services. I already said there's going to be two, but at this level it's the same principle. We considered a hypothetical credit network monopolist. It has the rules in place and it raises price to merchants, and then we ask the question would that price increase be profitable? And if the answer is yes, then that's telling us, by applying this test, that the credit card network services to merchants do, in fact, constitute a relevant market.

Q So in the case of the credit card networks, this

hypothetical monopolist would consist of which firms?
A So it would be Visa, American Express, MasterCard and Discover.
Q And just credit card operations?
A Credit and charge card operations, yes.
Q What determines whether a price increase would be profitable?
A Well, we've been talking about it. It depends on what the quantity response would be. When the Hypothetical Monopolist raises the prices of its network services, it's going to be more profitable the less quantity response there is, the less responsive demand. So the question comes down to how responsive would demand be to this price increase, how much would demand fall when prices went up.
Q When you say much would the required response be, you're talking about people would buy less if the price is higher?
A Yes, in particular here, the monopolist would raise prices, and it would see that the use of credit and charge cards, the charge volume falls as a result of the higher prices.
Q When you say merchants might substitute away, how might merchants substitute away and lead to a fall in credit card volume?
A Well, because it's a joint decision, it's really got to be the merchants and their customers jointly substitute away,

and there's two -- but merchants, of course, are the ones who are going to want to initiate this because they're the ones facing the higher prices, and there's two ways they can think about doing it, given that it can't steer -- or ability to steer is very limited. One is there's certain kinds of discounts they do have the legal right to offer. And we'll talk about it in a second. There's certain kinds of untargeted discounts. And I'm hesitant to say they're Durbin discounts. I know you've heard a lot about Durbin, perhaps more than you care to. But, your Honor, we're going to have to hear a little bit more --

THE COURT: Mr. Conrath warned you about that?

THE WITNESS: Yes.

THE COURT: That's all right. You're in a different category.

THE WITNESS: Thank you, your Honor. I'll try not to abuse the privilege. But one thing, there's certain kinds of untargeted steering that you do.

MR. CONRATH: And could we switch the monitor?

THE COURT: One minute.

THE WITNESS: Untargeted steering, they can do, and, really, the focus is going to be on the other thing a merchant can do, is stop accepting credit and charge cards, because, clearly, if it doesn't accept them, its customers can't use them.

Q Tell us what you take away from this slide about untargeted discounting or Durbin discounting?

A Well, let me step back before I talk about the slide. The problems with untargeted discounting, the central problem is this, you can come get someone -- they can come into your store and say, okay, we have a sign up that says if you pay with a debit card, it costs less. The problem with that from the merchant's perspective is there's a bunch people that will use debit cards anyway, and you're going to have to give them the discount even though they're not doing anything differently.

The Durbin amendment doesn't give you the right to say if you were going to use a credit card, I'll give you a discount for using a debit card. It has to just say I will give you discount for using a debit card no matter what. And so it's untargeted, and that makes it a lot less cost effective for merchants, mainly giving discounts to people who didn't need it, and, particularly, because merchants don't think that many people are going to switch from credit to debit. They're saying we're giving a lot of people discounts who don't need it; they're losing money, and we don't think we're actually going to swing that many people from credit to debit, so it's not an effective way for them to do it.

And what this is showing here is an American Express slide, thinking about how merchants could react to some

changes in what's available to them. And what you see, one call is talking about the holistically discount debit versus all credit, because American Express, in its documents, recognizes this distinction between targeted discounting and what they call holistic or untargeted discounting, so they recognize holistic discounting is less effective.

And then the other call-out is saying -- making this point, saying, look, you're going to offer discounts or incentives on your existing debit purchases, so they're saying these are the people who are going to use debit anyway. You're going to be giving them a discount; that's going to be losing money, from the perspective of the merchant. And then the next bullet is questioning whether you would convert enough of your customers from credit to debit to make it worth it. So this slide is showing that they recognize the logic, and, in fact, we've seen limited uses of such kinds of discounting, which is not surprising given that it's such a blunt instrument.

Q So what's your conclusion about whether untargeted steering would be a significant response to a hypothetical monopolist who raised prices?

A My conclusion is it would not be a major response.

Q Is there another way that merchants could substitute away from credit cards?

A Yes. And that would be -- as I mentioned just a little

bit ago, that would be to actually drop credit card, to stop accepting them, because by definition, their customers couldn't use them.

MR. CONRATH: Could we switch back to the public monitor, your Honor? And the next slide.

Q What does this slide show, Professor Katz?

A This slide is intended to provide a way of visualizing what the merchant's decision would be when thinking about would it make sense to respond to the price increase by no longer accepting credit and charge cards. And so the merchants going to think about what would happen if I stopped accepting credit cards? Well, the motivation for doing it is you would hope that there are people who were using credit cards before, who would continue to make purchases from you, but now would use something else. And so that box that's labeled "payment switching volume" is to capture that idea; that there's some set of your customers who -- when you don't take credit cards, they'll switch to something else. And we're going to measure them, though, in terms of dollar volume because that's money, and that's how you pay for credit and charge card network services.

And then what we ask, well, what good does it do the merchant, that people have switched to something else? Well, the good it will do is labeled here on the rate deferential. So if the other payment mechanisms are cheaper for the

merchant, they will say, well, some volume of people will switch; they'll switch to something cheaper, and that's the game.

Now, there's another side to it as well, though, and that is that the merchant will be concerned that some of its customers, when it sees that it doesn't accept credit and charge cards, instead of switching to something -- another way of paying, instead they'll switch to another merchant. Or they'll continue to shop at that merchant but they'll spend less. And that's what I have here labeled as "insistence volume," because it's saying they're insisting on using credit and charge cards. So those are sales that the merchant's going to lose by making the decision not to accept credit and charge cards.

And then we have to ask, well, when you lose those sales, how bad is that? And that's going to depend on what the merchant's profit margins was on those sales. What the merchant's then going to do, then, is say here's the volume I'm going to lose, here's how much money I was making as a percentage of those sales, and I'll balance those two things against each other to see whether at these price it makes sense to drop credit and charge cards. And what I've done is on the next slide -- we'll show on the slide how should numerical examples that can help make that more concrete.

Q Could you walk us through this numerical example?

A I put some numbers on it, and so, here, let's think about it's a merchant with a thousand dollars in sales on credit cards. And what the merchant is determined that if it stops accepting credit and charge cards that $800 of that thousand dollars sales will -- it will continue to make that. Those people still shop there; they'll use something different. And not only that, but what they use different will be two percentage points cheaper, 200 basis points.

So the merchant will perceive a gain from shifting people of $16; however, as you can see below that, we got to talk about the other $200, and that, in this example, is the insistent volume and that's sales volume that the merchant will lose. And, here, we're taking the example of a merchant that was earning a 20 percent margin, so those $200 of sales didn't cost the merchant the full $200, because when it lost the sales, it also didn't have to buy whatever the goods and services were. But you can see, even the 20 percent margin, the loss here is far greater than the gain; because even though the merchant is retaining most of the sales and getting to switch to something cheaper, the problem from the merchant's perspective is losing volume is a big problem because of the 20 percent.

Q Can we look at the next slide for another numerical example?

A Okay. So in this example, I've actually changed a couple

of numbers, so first off, you'll notice that now the merchant retains an even higher percentage rate. 95 percent of the volume switches from one payment to the other but stays with the merchant, and the merchant only loses 5 percent of $50 out of a thousand. And then the second thing that's changed here is now the rate differential is one percentage point rather than two.

So consider an example where the merchant saves less money when somebody switches from credit and charge card networks and something else, and also doesn't lose very much volume percentage wise. But you'll see, even in this example, when we calculate it out that the 1 percent of $950 is 950, and the 20 percent of $50 is 10. So even in this case, where only 5 percent of the volume is insistent, the merchant is still worse off dropping credit and charge cards.

And so this is, you know, a key driver, then, of the merchant's decision making. And what's -- the reason these numbers come out the way they are, so striking, is often because the merchant's margin is large relative to the rate differentials we're talking about. So you don't have to lose very much business in order to conclude as a merchant the economically rational thing to did is to keep accepting credit and charge cards, even if they're more expensive than other payment instruments.

Q How would your analysis change here if the merchant's

margin was larger than 20 percent?

A If it were larger, then the loss would be even bigger. And, in fact, an even smaller percentage of insistence volume would also deter the merchant from dropping credit and charge cards.

MR. CONRATH: Could we switch the monitor, your Honor? And could we now switch the slide?

Q Does American Express use the logic that you've just walked us through on the previous slides?

A Yes, they do. And the slide here is a presentation for Alaska Airline, in which American Express is essentially explaining this logic. Because what they're doing -- you see, actually, they have -- in Line D, they talk about the rate deferential. One thing I should say, American Express is interested in what happens to America Express' prices, not with credit and charge card pricing, generally. They're not a hypothetical monopolist of all credit and charge card networks.

But what this is, showing the logic, American Express is saying to the merchant, in Line D, here's the rate differential. If you were to stop taking American Express, here's a number for how much you could save when volumes switched. And then they're saying here, is they're saying, well, suppose all of your volume on American Express, which is line A, suppose all of that volume switched, you would get

that volume times the rate differential "D", that number, and that then that Line E is telling you how much money you would be saving. Okay. So that's the same concept as the green boxes we've looked at before. But then what American Express is also saying here, to this airline, saying, look, you have a high margin on your incremental sales. When you lose American Express sales, those are sales you were making a lot of money on, and think about that, too; you were going to fly the planes anyway, you've got the same crew, etcetera. And so that number in "F", as you can see, is much higher than the number I used in my example.
Q It's higher than 20 percent, in other words?
A Yes, it is. And as a result of that, what American Express is saying here in Line G, is they're saying, look, you do not have to lose much volume at all. And you can see Line G is a small fraction of Line A. They're saying you really don't have to lose very much volume in order to include. In this case, that you should continue to accept American Express. But this is the same logic you would say to a merchant, this is why you should continue to accept credit and charge cards, even if they're more expensive.
Q So you've told us that American Express uses this logic that was laid out in previous slides. Do merchants actually think this way?
A Yes, certainly, some do. Some of them, in fact,

calculate this out and spend a fair amount of effort to try to figure out these rate points.

Q So you've told us that a merchant doesn't have to lose very much volume in order for it to be unprofitable if it drops credit cards, even if they're more expensive than other payment forms. What determines how much volume a merchant who lose if it stopped accepting credit cards?

A This is where we have to look at both sides of the platform, because that's going to be driven by the merchant's customers' preferences. And so what will matter to the merchant is how much its customers insist on using credit and charge cards.

MR. CONRATH: Next slide. And we can switch to the public monitor now.

Q So did you consider how much various payment forms mean to customers and why?

A Let me answer the question about why consider this. Step back for a moment. So the question we're asking here is would a credit and charge card monopolist, the hypothetical monopolist, find it profitable to raise prices at the competitive level? And what we said is that untargeted discounting is not going to put significant pressure on the monopolist prices, so if something is going to stop the hypothetical monopolist from raising its prices profitably, it's going to be that merchants stop accepting credit and

charge cards.

So then we just talked about what goes into the merchant's calculation of whether to stop accepting credit and charge cards? It asks itself how much business will I lose? And then it multiplies by the margins and the deferentials, but, fundamentally, one of the things it has to determine is how much business will it lose if it doesn't take credit and charge cards? And the answer so that question depends on what its customers are going to do. They're the ones making the decision we'll either switch to another payment instrument or we'll just stop purchasing from the merchant.

And so that's why the next step in my analysis is to look at what customers think of different payment instruments and how close they think they are as substitutes. But a really critical point here is we're not worrying about the customer's decision just understand their decision; we're worrying about the customer's decision to understand what it means for the merchant. And what's critical for the merchant, when its making an acceptable decision is, is there a core -- a hardcore set of credit card users? And so that's really what we're trying to get at, because if there is -- even if most people say I don't care how I pay, if there's a core of people who do care and are loyal to credit cards, that means that the merchant's going to find it economically rational, profitable or just sensible to continue accepting credit and

charge cards. So this analysis coming up is really trying to get at the question would there be a core of customers that the merchant would lose?

THE COURT: But that's a static consideration; that's today. But it has evolved. Whatever it is, it's evolved, and it could evolve from what it is today to something else, depending upon what the rules are in the future; isn't that right, too?

THE WITNESS: Certainly the markets could continue to evolve, yes, that's right.

THE COURT: And the question to the Court to some degree will be so that's the situation today. If the rules for the structure changes, how will that permit it to evolve in certain ways that promote competition or that promote monopolization?

THE WITNESS: Uh-huh. That's certainly correct --

THE COURT: Even though the issue for this case is a restraint in trade, there are issues having to do with how the public or the customers view their choices. But this could be -- you know, those considerations can change and evolve over time, depending on how the public views the use of credit cards in the future. There's been an education that's been provided, and the question -- one of the questions is that education is one thing, but what about how public will be educated in the future? And the public is being educated in

ways that were never even conceived of 20 years ago, if you just look at the way information is provided to the public using electronic means today. So there are a lot of issues here that are not static, you know, they're a constant -- there's a constant evolution in the public perceptions. So I just point that out to you. I don't know how you would measure that as an economist, but it is a consideration.

THE WITNESS: I certainly agree, your Honor, that it's a consideration. But also to speak to your question about how the market will evolve, it's my conclusion that in the absence of the anti-steering rules -- the market will evolve in many different dimensions, but that creates competitive pressures stimulating more favorable evolution of the industry. For example, when steering is possible, credit and charge card networks will face greater competitive pressures, and that gives them incentive to innovate and try to figure out how do I deal with the changing market conditions, given that now if I don't keep up with the times, merchants can steer their customers away from it. It actually creates greater incentives for them to innovate.

You're also right it's difficult for anyone to forecast what the market will look like 20 years from now. Certainly, we can go back and look at the role of credit cards and how it -- you know, it's increased -- it increased over time. Things have changed. We'll see in just a few minutes

how people don't use checks anymore. Yes, things do change, but I think there's every reason to believe the credit and charge cards are going to continue to be important for many years to come. One of the things people talk about as well, they say, well, aren't all these sort of online services, and PayPal and things like those coming along? But those services, generally, are piggybacking on credit and charge card networks; they're piggybacking on debit networks. In fact, that was one of the things I was asked to speak about.

They said what's the future of things? Aren't mobile phones going to replace credit cards? My conclusion, I said, well, in a narrow sense that might be right. You might use your phone and swipe at a merchant, you can do that, instead of the piece of plastic. That's not what the important issue is. The important issue is are you still using the credit card networks to do this? Are you still using the banks? No offense, but you and I are old enough, I think, to remember the days of the charger plate, where you had the physical machine, where you give the merchant your credit card and they ran the plate over to take a paper -- okay. They don't do that anymore. Now, we've moved to electronic, but it's still the same network. It's just they're upgrading their technology.

And things like mobile phones, it's the same thing; yes, phones can play an important role in the different

technologies and PayPal's trying to do things, but it's still building on the same structure. In fact, we've seen this with the mobile phone companies; they thought they would create some sort of alternative, which, unfortunately for them, they named Isis, so they just recently had to change the name.

THE COURT: Sounds like a good idea.

THE WITNESS: And there's an obvious reason they changed their name. It just hasn't worked out, because I think what we're seeing instead is that Visa, and MasterCard and American Express are figuring out to evolve to use those new technologies, but it's not that those technologies are replacing them.

THE COURT: We had a witness yesterday from American Express, Mr. Silverman, who discussed a number of new products that American Express is promoting to different segments of the consumer community, which had different attributes that are -- might be of a particular interest to those aspects of the community. And so it's clear that American Express is working to find and promote products that will deal with the needs of those elements of the consumer community, so they're not letting grass grow under their feet either. And I think that, you know, some will work and some may not work, and then they'll refine, and change and so forth. So there's a certain dynamic aspect of what this company is doing that is in keeping with what you just said. And you might be interested

in reading that testimony before tomorrow, when I ask you again about it.

MR. CONRATH: While we won't communicate with the witness, we'll leave a copy of that testimony where he can read it.

THE COURT: Go ahead.

Q So just picking up on the question of education, if merchants were free to steer their customers among payment forms, among credit cards, would part of the ways merchants might steer their customers involve educating those customers?

A Certainly could be part of what they would do.

Q So now let's take you back to the part where we were on market definition. I think you'd explained to us that the question is -- for the merchant, the question can I drop credit cards, which is a relevant question in market definition, depends on is there a core of people who are going to want to use credit cards. Do I have that part right?

A Yes, you do.

Q And so you said, then, let's look at what customers think about payment, the ways they can pay payment instruments. I think that's the point you were about to explain, and I think the slide goes to that. So if you could explain to us what this tells us about customers --

MR. CONRATH: Back up. I don't think we've left that slide yet.

Q -- about what customers are looking for when they look for a way to pay at a merchant.
A Okay. So what I put up here are four dimensions of characteristics of different payment instruments that customers would care about. And one thing I would say about these, your Honor, is these are the core dimensions, and I think there's every reason to believe, at this level, these are going to continue to be concerns. They were concerns 30 years ago; they were concerns a hundred years ago, and they'll be concerns or dimensions of differentiation, going forward, for the next hundred years. Now, how different payment instruments score on these different dimensions, that, of course, could change. But these are the sorts of things that customers are going to care about with any payment instrument.

So the first one on the list is ubiquity of acceptance, which is to say how widely can you use it? Can you use it where you want to? And, for example, checks increasingly suffer from that. Second one is security, and in the case of security, clearly there are differences. Cash is one of the least secure forms of payment, and that's true, actually, certainly from the customer's point of view but also from a merchant's point of view. And if you look at debit versus credit, you'll see that credit cards have different legal protections, stronger legal protections than debit cards

do, in the point of the view of the customer. And then debit cards also have the disadvantage from a security perspective of if someone is able to break into your account, they have access to your checking account; and that even if you're protected financially, because some institutions choose to do that; they go beyond the federally mandated protections and they'll protect you from losses, you still may have this thing that your checking account is frozen for a while and you're unable to use it. So there's security differences.

A clear difference is their credit function. Credit and charge cards, the money is not being taken out of your account immediately; whereas with cash, you've got to take the money out in advance; and with a debit card, the money is, essentially, being taken out of your account immediately. So credit cards have this thing that they're providing credit, which is also useful for some industries where they play the role of a security deposit. You do to a car rental company or to a hotel, typically they want you to give them a credit card. There are instances where you can give them big piles of cash, in the case of hotels, and there are some rental card companies that will accept debit cards. But, generally, they want a credit card; it has a particular feature of a security deposit.

And, also, of course, different payment instruments differ in terms of any sort of ancillary benefits, and a big

one, in the case of credit cards, is that they often come with rewards. So there are these different dimensions, along with payment instruments matter and ones in which credit cards stand out. It's a credit function. And then, also, they do have very desirable security features, despite the fact that we do see a lot of credit card fraud.

MR. CONRATH: Could we turn to the next slide.

Q And tell us what this slide shows?

A Well, this is just -- just stepping back for a minute and looking at very broad trends. And what this is showing is -- again, looking at the bottom, we're looking at a period of 1990 to 2011, and what it's showing is just the share of U.S. consumer payment. It's saying, look, how much do people use, different types of payment mechanisms. And the blue line at the top that has been plummeting for years is the use of checks. And we've seen that checks are being used less and less. And then the purple dash line at the bottom is debit cards.

There's a strongest trends over this 20-year period has been the demise of checks, coupled with the rise of debit cards. In fact, for many purposes, debit cards really replace checks because debit cards give access to your checking account, just the way checks did, but they do it more conveniently. They haven't completely replaced checks because people use checks for making large payments, and people pay

their credit card bills using a check, for example. And there's not the only thing replacing checks, because things like electronic bill pay is replacing checks as well. But the big trend is debit. The broadest level is that debit has been replacing checks, and, in fact, debit cards were brought out initially. Visa called them Visa Check Card; they were trying to train customers to think that way.

Now, the other thing you see is that cash's share fell in the 90s, but cash is sort of holding its own; and that credit share, with the exception of the dip for the Great Recession, good credit has slowly been rising. Part of that is credit in some cases is replacing checks, but there has been some growth as credit has fallen, that some of that has been taken up by credit. Now, you ask from that, you know, does that mean, then, that credit and checks are competing with each other? Now, they're substitutes as a broad level, will but it's sort of like asking the question is you're thinking about going across the country, do trains and planes compete?

If you looked historically, you'd see most people went across the country using trains. Now everyone flies. There are still some people who would take a train, but it's not a meaningful substitute for purposes of market definition and for understanding competition, and that's the same situation here; that these broad secular trends are not the

same as saying how do consumers move around; how do they switch their purchase decisions and what payments they use in response to price change?

Q Could you turn to the next slide and tell us what it shows, please.

A So, again, this is looking at long-term trends. Now, here, instead of looking at the shares, it's looking at the amounts of moneys it spends on both. And we can see here is that both debit, the lower red line, and credit, the upper line, have generally been increasing, increasing together, except, of course, now familiar with the Great Recession, where you see the debit -- credit drops significantly before recovery, as the economy did. So you see, though, that they've both been growing. It's a very different situation in terms of long-term trends and checks, where you've seen debits going up while, in terms of share, while check share is going down significantly. Here you see that both of them have been growing in absolute volume overall.

Q Did you also look at consumer use of payment instruments at a more detailed level?

A Yes, I did. And the reason for doing that is it's going to get out this question of, okay, you said, you know, payment instruments can differ in terms of ubiquity, or security, or these other things but do those differences matter? And so one way of getting at that question is to look to see do

customers use different payment instruments in different situations?

Q And what does this slide explain?

A The answer is they do. In fact, if you think about it, the typical customer uses a portfolio payment instruments, which is to say you may have a single person who at some point sometimes uses checks, sometimes uses his or her debit card; sometimes pays with a credit card, sometimes cash, and so any one person, depending on the situation, may use a variety of different ways of paying. And then what the second bullet is pointing out is that that can evolve, matching the characteristics of the payment instrument with characteristics of the transaction.

So if you think about the characteristics of the transaction, is whether it's a small or large one, so cash works well for small transactions; you give someone a couple dollars for coffee or whatever. Also could be the location; is it something that's near your house, or is it where you're traveling? That may affect how much flexibility you need to how the payment works. Is it face to face? You can hand somebody the cash or check, or is it remote? Say you're making an online purchase; is it something you planned or something you did at the last moment? So that's one thing that customers will take into account when they're figuring out which way to pay.

The other thing that will matter is the customer, him or herself. Turns out, if you look, people behave differently, depending on their education and their income, their attitudes towards borrowing. And another thing we see is age. This speaks to a point you were raising. We see younger people tend to use debit cards more, and there's economic research emerging on this, but it's sort of when you came of age that sort of affects your attitudes toward credit and whether you think I should use a debit card to maintain financial discipline, or whether you're somebody comfortable using a credit card. So all of those factors will go into someone's decision what to use for a given transaction.

Q Is there anything distinguishing about travel and entertainment merchants in regard to customer tailoring of payment choices?

A Well, I mean, if you think about it, often we're talking about transactions that could be relatively large transactions, for example, or they could be transactions you're undertaking for business, where you're hoping to get reimbursed and, again, it's large. Could be ones where you were not somewhere where they know you and are happy to accept a check. One other thing I should say, a lot of them are thinking about something like airlines, where a lot of it nowadays would be an online transaction, similarly for hotels.

MR. CONRATH: Could we switch the monitor?

Q Do you have some slides that illustrate some more of your findings on consumer payment choices, Professor Katz?
A Yes.
Q Explain this for us, please.
A This side is one that doesn't have time along the bottom. If you look along the bottom, you'll see what it's identifying are different buckets of transaction slides. So if you look on the left, between the zero and that first tick mark, it's saying transactions that are greater than equal to $5 and less than on equal to $25. And then as you move to the right, the transaction size is getting larger and larger. And then what the different colored lines are showing is what percentage of that bucket is accounted for by a particular payment instrument. So if we take the bucket that's the smallest one, the greater than equal to 5 and less than 25, and the greater and equal to 5 because of the data source and what they track, but what it shows is that cash is the predominant way people pay for small transactions.
Q And cash is the red one?
A And that's the red line that's at the top. But then what you see, of course -- what you see is that the use of cash falls off dramatically as transactions get larger, so people are tailoring their use of cash to small transactions. You also see that for the smallest transaction that debit cards come first, and that debit cards, you see, are used --

primarily they're used -- for the smaller transactions, they drop off. And credit cards, when you get to this middle transaction, you see, in fact, for a lot of the sort of day-to-day transactions, credit cards are used the most of anything. The green line is the highest, when you're looking at range, from $25 to a hundred and twenty-five dollars. So the fact that these lines have these various slopes, they're not all just flat, is showing you that the transaction size is an important consideration when someone's trying to figure out, well, what should I pay with?

THE COURT: What is other? Is that electronic transfers?

THE WITNESS: It may have some other categories, too, but primarily it seems like electronic transfers. It's one of the ones you see. Part of the things we see, other rising, when you get to large ones. When you're talking about bill pay, you'll see those larger transactions.

MR. CONRATH: Can we have the next slide, please?

Q And what does the next slide show?

A What this slide does is focuses on credit and debit, because that seems to be where the disagreement among the economic experts is, in drawing the boundaries of the markets, and so this slide focuses on those two. And so if we look, what it's showing along the bottom is it's indicating different categories of merchants. So, again, the one to the

left most is car rental agencies, and next to that are, then, hotels and other forms of lodging. What the bars are showing is what percentage of the transactions for that type of merchant, what share of those are measured in dollars, are on credit and what shares are debit, and then the difference, because you'll see those first two bars don't add up to a hundred. The difference is what's -- is how people pay using everything else.

So, reading this chart, what it's saying if you're a car rental agency, the vast proportion of your payment volume is going to be with people paying with credit cards, and then there's going to be a small amount with debit cards and then there's a residual amount that's everything else. Similarly, if you look at hotels and other lodging, the preponderance is on credit and the same thing for airlines. And we can continue, you see, for other industries, though, for types of merchants, such as quick-service restaurants, or groceries and supermarkets, the use of credit is much more limited, and the use of debit in some of those industries is greater. So this is showing that there is some variation, so customers are tailoring how they use credit and debit cards here, and it's also showing you some merchant's credit is really very significant, the vast majority of their sales.

Q In industry categories, where the bars are relatively equal, like we can look at gasoline stations here, does that

mean that customers at gas stations are indifferent between debit and credit?

A No, it doesn't indicate that, because even though the level of debit and credit usage is roughly the same there -- first off, even if it was the same person using them, they might be using debit and credit differently at a gas station depending on the nature of purchase. So, for example, you imagine somebody saying, well, when it's -- I need a repair for my car and it's a lot of money, I'm going to pay with my credit card. But when I'm just buying gas for my weekly commute, I'm going to use my debit card. But the other thing is, those are unlikely to be the same person doing it 50/50. In fact, it can be as some people are paying with credit cards and other people are paying with debit cards, and it's not that the credit card people say I'm happy to pay with debit, it's I want to pay with credit. There's a comparable number saying I want to pay with the other one.

THE COURT: In the case of gas stations, as a practical matter, there's some stations that charge a premium for the use of a credit card, and so you might choose to use a debit card to avoid paying the extra dime per gallon, or whatever they charge, for your gasoline. So the same purchaser might be using the debit card on some occasions and a credit card on other occasions.

THE WITNESS: That's certainly a possibility, and

there are people who do do that. I don't know about the particular reason you said, but there are people who use both credit cards sometimes and debit cards sometimes.

THE COURT: What is the time frame of this slide? Is it the same as the next slide which was -- which indicates it's in January 2010 from March 2011? I don't see a number or a date.

THE WITNESS: I'm sorry, there's a notes page of this slide that has those parts I believe that this is going through more recent data.

THE COURT: Okay. I'll find it. That's fine.

MR. CONRATH: If you look at the notes page, which is in the back of your binder, this references 2011.

THE COURT: Okay.

MR. CONRATH: This is from proprietary Visa data.

THE COURT: Thank you very much.

Q So we look at another category where the credit use in total and debit use in total are quite similar, and that would be drugstores on this slide. Similar question, does that mean that debit and credit are close substitutes for the merchant, the drugstore?

A No, it doesn't. Because, again, as this question of -- we want to get at whether people are willing to switch back and forth or whether this could be two separate populations, again, people targeting how they use credit and debit for

particular transactions.
Q All right. You have some other evidence that will help us understand whether those transactions at drugstores, for example, are the same people using alternatively debit and credit or different groups of people using credit from those who are use debit?
A Yes, I have a sequence of slides, three that are showing data from --
Q So I think maybe even the names of these companies, so just refer to the category, if you would.
A From the parallel case, the private plaintiffs, and this data were available from them, because they track -- those are merchants that have loyalty card users, and they track them, so we had available data, and we could look to see how those people use credit and charge cards to some degree. So this first one is showing the drugstore, probably heard of, and what it's showing is -- if you go along the bottom, again, this is in buckets, and it's saying, when we look at these people who are using credit cards, or debit cards or both, and they have at least two -- I think this is two transactions. When we look at those people, we're going to ask, well, what percentage of the time did they use debit?
So when you see the number that's on the far left, it says zero and then there's that bar above it, that's saying those are people who, when they make purchases from this

particular drugstore, they always use credit; they never use debit. And then if you look at the bar at the other extreme, where it says a hundred, it says those are people that always use debit and never used credit. And then you have the people in the middle, and those are people who, in fact, did use both to varying degrees, and so you'll see, for example, if you go -- I can't say the numbers, but if you go to the right, to that 90 to 99 category, it says that percentage of people used a debit card at least 90 percent of the time when they shopped at this particular store.

And so one of the things you see from this measure, is that of the -- again, I can't say the exact numbers -- what this is telling you is that somewhat more than half the people either used credit cards exclusively or they used them at some point. So we're taking the people -- the people always use, but of the other ones, somewhat more than half who use credit cards at least once. And you see of those credit card users, half of them use only credit cards. So there are a lot of people -- the people who use only credit cards, there's a large group, roughly comparable group are the people who use credit and also use debit at various points. So it suggests that there are people -- that there's a set of people that are loyal to credit, and that the merchant would be concerned about losing if it were to decide not to accept credit cards.

Q Can we just note the dates of this data? I think it's at

the bottom there.
A Yes, it's January 2010 to March 2011.
Q Okay. And go ahead with the next slide.
A So then the next slide is looking --
Q This is a grocery store chain; is that right?
A It's a holding company for some grocery store chains. They have more than one chain, but I won't say the names, but you would recognize them. It's a whole -- grocery store holding company. Again, I won't go through the specific numbers, but it's telling a similar story that we see, that there are many people who just use debit; there are many people who just use credit; there are people who use both. And, again, of the people who use credit and/or credit and debit, there's significant percentage of those only used credit. And then we turn on the next slide, it's another supermarket chain, and, again, we see a similar story, similar path.
Q This last one reflects data up through March 2012; is that right?
A That's right. And it was driving these dates or the data that were made available by the private plaintiffs in the production in this case.
Q So what are the implications of these three charts for your analysis?
A Well, what these are indicating is that -- particularly

these merchants, but illustrates the point more generally, that these merchants would be concerned that if they were to drop credit and charge cards that the insistence volume, the volume they would lose by not taking credit and charge cards would be significant; that they would suffer economic losses because of that, and, therefore, they should decide instead to continue to accept credit and charge cards. And, in fact, it suggests that they would do that even in the face of a price increase.

Q Has American Express done any analysis of insistence?

A Yes, they have.

Q And could we turn to the next slide, please, and will you tell us what this slide means?

A Well, we'll come back to this slide later. But when we talk about American Express itself, because, of course, America Express' interest would be with merchants' incentive to accept American Express. As far as I know, they haven't done an analysis of overall insistence for credit and charge cards. They didn't do a Hypothetical Monopolist Test that I know of. But what this is showing is their estimates of the insistence, so this is -- expresses a percentage, this call-out says -- it's estimates they did of what percentage of the business would a merchant lose -- if it had been on American Express what percentage -- what percentage of that business would the merchant lose if it no longer accepted

American Express.

So, for example, that first category, and I won't read out the numbers, but it's saying for quick-service restaurants, what they've estimated is something called "total insistence," so you would lose that fraction of your business if you didn't accept them. And they've done it for a variety of merchant categories. And we'll return later to talk about what the earlier columns mean. The point to note here is they have a particular way that they calculate that number from some composite ones. And the point to take with away from this is, A, this is partly as a reality check for me that I said here's how merchants who think about these things, in terms of, you know, what their economic incentives are, and this is showing that American Express is thinking the same way. And also they've concluded in their case -- insistence numbers are, as you'll see, large numbers when you start thinking about what they mean be for the merchant's decision. This is a fair amount of business to be at risk for a merchant.

Now, again these are estimates that American Express as made, and they've made more than one estimate, but the bottom line from it is these are significant numbers they would be at risk for a merchant. And in thinking about the hypothetical monopolist, you'd expect the insistence numbers to be larger; because if you think about it, if a merchant

drops American Express, one of the things you would expect happen, and what American Express has said would happen, many of its cardholders do have Visa and MasterCard, credit and charge cards, and they would switch to those cards. If you think about the hypothetical monopolist raise in price, there's no way to go. You can't switch to another credit and charge card, because the monopolist has the ability to raise the price on all of those. So for the hypothetical monopolist, you'd expect these insistent numbers to be much larger.

(Proceedings continued on the following page.)

DIRECT EXAMINATION (CONT'D.)

BY MR. CONRATH:

Q In your market definition you specifically identified travel and entertainment merchants. Does this data on this slide suggest that the travel and entertainment segment is the different from other segments?

A Well, what you see on this if you look say at the line for airlines or you look for car rental or lodging, so the big components of travel and entertainment, so car rental being the second line of numbers and then lodging the third and then airlines the bottom of that first blue box, the T&E box, you see those numbers are particularly large reflecting the importance generally of credit and charge cards to that industry and here reflecting the particular importance of American Express to those merchants.

MR. CONRATH: We can do the next slide publicly, Your Honor.

Q So, what are the implications of what you have told us so far for market definition?

A So, what this is suggesting or indicating is that while it is the case that there are payment instruments that substitute each other for a lot of consumers for lots of transactions, there are also situations where for many people for many transactions other payment instruments are poor substitutes for credit cards. So, what that's telling us is

the merchant is going to be concerned about insistent volume, it is going to be concerned that if it responded to the price hike of the hypothetical monopolist that it would lose significant volume of business that would cost it money and that would ultimately make it a money losing decision to stop accepting credit and charge cards even in the face of a price hike.

And two things that I think are important about that, one is that would be true even in a lot of situations consumers would be willing to stop using credit cards and switch to something else and that's one thing that I think is important for me to get across is normally when we think about competition between different goods and services, the people who really matter for competition are sort of the people who don't care that strongly between say one brand and the other because normally what we're doing is say, well, you know, there's somebody -- suppose you and I are automobile manufacturers, there's somebody who thinks your car and mine are almost as good as each other's so then what we do is we each try to attract that person because I can pull them away from you. There's somebody I know just absolutely loves your brand of automobile, that's probably not the person I'm competing for because he's probably going to buy from you anyway. I want the person who is sort of indifferent between us, who is willing to switch to -- a lot of time economists

talk about competition at the margin or for the marginal customer but here what's happening is the merchant is faced with this all or nothing decision, I'm either taking credit and charge cards or I'm not and so what matters to me now is not the people who are happy to switch easily, I mean I'm glad there are those people because they'll keep shopping at my store but what also matters to me is the people who are really loyal, that core because those are the people I'm going to lose and that's something -- when I said earlier we need to look at the unique features of the industry, we need to understand key economic features, that's one of the key features that when a merchant is thinking about dropping, it's making this all or nothing decision so it has to be concerned with the core of people who are really loyal, if there are ones and my analysis indicates there are and merchants think so too, it has to be concerned with that core of people that are sufficiently loyal to credit and charge cards that they would buy less from the merchant even if the merchant didn't take those cards.

THE COURT: Well, that's what that last chart was all about on insistence, right?

THE WITNESS: Yes.

MR. CONRATH: Your Honor, I'm about to start walking through applying the Hypothetical Monopolist Test and this is, if you're inclined --

THE COURT: I think it is about midway in the morning, so we're going to take a ten minute break and return for the walk through the test.

MR. CONRATH: Thank you, Your Honor.

THE COURT: All right, thank you.

(Recess taken.)

(Continued on next page.)

(Witness resumes the stand.)

THE COURT: Please be seated.

I remind the witness that he is still under oath. And how do you want to proceed?

MR. CONRATH: This slide is public, Your Honor. The next one will not be.

THE COURT: All right. You may proceed.

MR. CONRATH: Right.

DIRECT EXAMINATION (Cont'd.)

BY MR. CONRATH:

Q Professor Katz, I think you told us this morning that the goal of the Hypothetical Monopolist Test is to identify reasonably close substitutes; is that right?

A Yes.

Q Have you used the analysis that you've just explained to us about customers and their preferences in implementing the Hypothetical Monopolist Test?

A Yes, I have.

Q Would you explain to us what is on this slide that we have in front of us?

A So, this is just a recap of what we were talking about before with a little more detail. So, we're going to look at a hypothetical monopolist of all the credit and charge card networks, so Visa, American Express, MasterCard and Discover, and then ask whether it would be profitable to impose the

SSNIP, the small but significant and non-transitory increase in price above the competitive level, but we're going to have to be sensitive to the fact that we're dealing with two-sided platforms here, this monopolist would be a two-sided platform.

So, what I'm going to do is consider the situation where the monopolist is raising the price to merchants, so it is going to raise the price to one side of the platform, and then in my analysis I'm going to hold the price of the cardholders constant, then take into account, allow for the possibility for there to be some sort of feedback effects.

Q So, Professor Katz, you mentioned the term small but significant and non-transitory increase in price, could you explain what economists mean when they use that term?

A Typically what we're talking about is a five percent increase in price. Sometimes we use ten percent or it could be a different amount in the particulars of an industry but five percent is common, and then the non-transitory part is that we're interested in a price that's put into effect and remains, you know, some non-trivial amount of time so people can actually respond to it. So, I'm just thinking here of the monopolist raises the price and keeps it up.

Q You say increase --

THE COURT: I'm sorry. Holding the prices to cardholders, is that the price that the monopolist is charging for the cardholder to possess the card?

THE WITNESS: No.

THE COURT: Or is it the merchant's price to the cardholder for the good or service that's being purchased?

THE WITNESS: So, I'm going to raise the price that the merchant pays through its acquirer to the credit and charge card network and then I'm going to hold constant the price and really what I mean here is the rewards, I'm going to hold the rewards constant that the cardholders are getting, okay. So, for example, I'm not -- I'm going to make sure this is money that is being kept by the hypothetical monopolist because we're asking the question can it raise its profits, so I'm thinking about raising the network fee, for example, as opposed to if you remember that slide with the three dollars, I'm not talking about raising the interchange fee which would then just go across the network, I'm talking about the network keeping the money.

Q Do economists sometimes think of credit card rewards as a negative price for cardholders?

A Yes.

Q So, sometimes when we talk about price to cardholders, what we mean is the rewards in essence are paying the cardholders for using the card or a negative price?

A Yes, and also generally when I'm talking about the price to cardholders, I am talking about rewards and any charges that the cardholder has that would vary with the level of

transactions as opposed to say either you pay an annual fee or something, that annual fee will be set by the credit card issuer and generally is not set by the credit card network, so I'm usually not talking about annual fees unless I explicitly say that I am.

THE COURT: Unless the issuer is American Express.

MR. CONRATH: Well, which is both an issuer and a network.

THE COURT: Right.

Q Is that right?

A That's right. So, when I talk about American Express as a network, I'll be talking about its network operations but you're certainly right, American Express as a company is setting annual fees.

THE COURT: All right. Thank you.

MR. CONRATH: Now, could we switch, Your Honor. Thank you. You're ahead of me.

THE COURT: Go ahead.

MR. CONRATH: Could we have the next slide please.

Q So, Professor Katz, the slide is referencing merchant segmentation as a central feature of American Express's pricing strategy. Why is that relevant to market definition?

A Well, as I was just saying, in defining relevant markets we need to be sensitive to industry characteristics. We want to tailor our analysis to the facts at hand and one of the

things to take into account in market definition is whether or not the hypothetical monopolist would raise price to everybody for all of its products or whether it might tailor the price increases and target them and what the next few slides are going to show is that the hypothetical monopolist would certainly have the ability to do that if it wanted to.

Now, I should say I want to distinguish between two things because one of them is a source of disagreement among the experts, I believe the other one can't be but perhaps they'll show me wrong. There's disagreement among the experts on whether or not, for example, American Express currently engages in price discrimination and I believe they do and I believe you will hear from American Express's expert witnesses they think American Express does not. However, for the purposes of the Hypothetical Monopolist Test, the question is could the hypothetical monopolist engage in price discrimination and I think the answer to that is unequivocally yes and what I'm going to show in the next two slides is that the credit and charge card networks, do they have the ability to target their pricing and to charge different prices to different merchant segments and therefore the hypothetical monopolist could do that as well and could do it in a discriminatory fashion if it chose to do so.

Q Which are the parts that you want to call our attention to on the slide that's on the screen now, on slide 51?

A Okay. I just want to point out here that American Express in its pricing strategy segments merchants and it segments merchants a variety of different ways and you'll see that box in the middle is showing the different categories because this is a slide summarizing American Express's overall philosophy or strategy towards pricing and it is showing that merchants are segmented by their location, we're going to be concerned with merchants in the United States, but important for our purposes, it segments them by industry and then it also has different prices by size and as the right part of the table indicates, there's many different segments but the key point is that the American Express can in fact target the pricing to different industry segments and as the next slide will show --
Q Before we leave that --
A -- they actually do.
Q Well, just to be clear, you're calling our attention to that central box, you've placed a red highlighting around it; is that right?
A Yes.
Q Okay, great. Go ahead to the next slide. What does this slide show?
A So, this is -- before we have the pop-up. Can we remove that. Go back for one second. Go to slide 52 please without the pop-up if you can. Thank you.

So, we'll look at the pop-up in just a second but what this is is calculations of American Express's discount rates and over this period from 2001 to 2011 and what it is showing is the discount rates broken out by the different merchant segments, okay, and as you can see just looking at them that there are differences across segments, in fact there is segmented or targeted pricing.

And now if we could have the pop-up, to just make the point, summarizing this, if you look at the average merchant discount for T&E and the average merchant discount for non-T&E merchants, you'll see there is a substantial difference between them. So, in fact, they are engaging in segmentation, whether you call it price discrimination or not, they clearly have the ability to identify their customers, to charge different customers different prices and the customers are not able to arbitrage those differences away.

MR. CONRATH: Next slide please.

Q Do other credit card networks also engage in pricing to merchants by segments?

A Yes, they do and what I've shown here is a table that's publicly available of Visa USA's interchange. Now, remember that's not the same as the merchant fees or the network fees but for our purposes of identifying segmentation this is appropriate because the interchange fee is the biggest part of what a merchant is paying when it accepts a Visa card, and if

we could have the highlights shown, this just gives an example where it is showing that if you're a hotel or a car rental agency, you are paying a much higher rate, so it is much higher from the merchant's perspective than, for example, if you're a supermarket. So, again, it is to illustrate that the different networks do segment the merchants and prices, the different types of merchants differently.

Q How did you take merchant segmentation into account in defining markets in this case?

A Well, it is because of the merchant segmentation and the possibility of price discrimination by the hypothetical monopolist that I ended up looking at two distinct relevant markets because the reason, as I said before, one of the markets is network services to travel and entertainment merchants and as these data are showing, the network, the hypothetical monopoly can charge different prices to them and so it is worth then considering whether it would be profitable to raise prices in a way targeted at travel and entertainment merchants but then I also want to look at the general market.

MR. CONRATH: Next slide please and, yes, this can be public, Your Honor.

Q So, will you remind us again of the two candidate markets that you analyzed?

A Yes, there's the general purpose credit and charge card network services market to T&E merchants and then the parallel

market to all merchants in the United States.
Q Is defining markets for certain segments that could be targeted a standard approach?
A Yes, it is.
Q And is there a term for this practice?
A Yes, it is often referred to as defining price discrimination markets.
Q And is this a practice or approach that's used in the horizontal merger guidelines?
A Yes, they identify -- the merger guidelines identify the definition of price discrimination markets as something that can be appropriate depending on the circumstances of the market such as here.
Q And when you look at the general market or the more broader overall market, did that involve combining or aggregating different segments?
A Yes, you can certainly think of it that way because if you either think of those Visa categories that we looked at or American Express's, they have many more merchant segments that they define and what the general market is doing is aggregating those up and looking at them at one time.
Q Is it a standard approach to combine segments?
A Yes, it is because you could have as here I think situations where if you really looked at every single segment where the monopolist could price differently, you might have

thousands of markets or hundreds and it becomes impractical to look at every one separately, so it is a common practice then to roll them up into one and analyze the conditions in the broader market.

Q Is there a term for combining such segments?

A Yes, sometimes it is referred to as aggregation markets.

Q Is that an approach that's used in the horizontal merger guidelines?

A Again, the horizontal merger guidelines do identify that sort of approach as something that can be appropriate and used.

Q Did you apply the Hypothetical Monopolist Test to the two candidate markets you looked at?

A Yes, I did.

Q All right. Let's start with the travel and entertainment market. Did you reach conclusions about whether there is a relevant market for general purpose credit card network services for travel and entertainment markets?

A Yes, I concluded it is a relevant market.

MR. CONRATH: All right. Can we have the next supplied please.

Q Will you explain to us how you reached that conclusion using the Hypothetical Monopolist Test please?

A Okay. So, recall what we're doing is we're asking would the price increase be profitable for the hypothetical

monopolist, so let's think about the hypothetical monopolist's profits and what happens when it raises the price. Well, one effect of raising the price is to raise the margin, that's a gain for the monopolist, but another effect of raising the price would be to depress the volume and so the question for the hypothetical monopolist in terms of thinking about the profitability of the price increase and therefore the question for our Hypothetical Monopolist Test is, well, does the margin go up faster than the volume falls or is it the other way around because if the margin is going up faster, then the volume is doing down, then it is going to be a profitable price increase and the Hypothetical Monopolist Test will tell us this is a relevant market. So, that's why you want to think about how that works.

Now, what I put here, and I won't try to recreate the arithmetic, is a formula that says, well, exactly how much when the price goes up and the volume goes down, where is the break even point and so what the formula I have here says is if you take a particular percentage price increase, typically we take five percent, and then you have a particular margin that the monopolist -- now, remember earlier we were talking about the merchant's margin, here now we're going to talk about the monopolist's margin, if you take those two numbers, what you do is the formula tells us here's how fast the volume would have to fall in order to defeat the price increase. So,

if the volume changes by less than this threshold number, then raising the price will be profitable and it is a relevant market and so what I'm doing here then is identifying that threshold and then what we do is we've got to look at that threshold against the evidence available to us in the market to ascertain, well, is it likely that the monopolist will lose more or less volume than this threshold and so that's what I'm doing here is just setting up the formula that identifies that threshold.

Q So, part of what you're saying is even a monopolist can't keep raising the price forever?

A Certainly not. You know, at some point the price is going to get so high that merchants or in this case merchants will stop -- start turning away from it and also it is the case that you'd expect even a monopolist to lose some merchants right away. It is all a question of degree and also of, like you're asking, the starting point.

MR. CONRATH: So, the next slide is confidential or has confidential information.

Q So, Professor Katz, I think a couple of the numbers, the specific numbers on here are confidential so if you could describe them in a general way and tell us what you did, what this slide explains about implementing the formula in the candidate credit card market.

A Okay. So, one of the questions that comes up because

we're -- well, would come up in any market but comes up here, we want to take into account the institutional features and the fact that we're dealing with two-sided platforms. It is asked when we take say five percent, five percent of what, and so what I'm showing here is what happens, talking about taking about five percent of the network fees because that's what the network is keeping for itself, it is facilitating transactions by others, it's doing things like collecting interchange but that's being passed through. The part it's keeping for itself are these network fees, that's what I'm talking about increasing.

And so, what's described on the slide, and I will not it read out the number, is that American Express did a benchmarking analysis looking at Visa and MasterCard, and this is part of American Express evaluating its own network operations, and it came up with the number shown there as a range. Now, if you take that and take five percent of it, you'll see you're dealing with that number of basis points shown there as the decimal in the middle. One of the things I did was instead of taking five percent which is common, I said, well, let me be conservative and take ten percent instead, in part doing that to avoid the criticism that say, well, okay that other number is so small, you know, who would even know. Now, first off, I think that's not right, you know, people in the industry do worry about numbers at that

level but, in any event, to be conservative I used the ten percent SSNIP, looked at an even larger price increase which yields that's number of basis points shown there.

Now, the other thing to do to put in that formula is the monopolist margin and what I've done here is I've just made an assumption that the margin is 100 percent which is to say I've assumed that this hypothetical monopolist has no costs. Now, the reason that's conservative, right, we know the monopolist is going to have some costs, its actual margin will be smaller, but the reason that's conservative is what I'm doing by making this assumption that when the hypothetical monopolist loses business, this is as painful as that can be because this is saying when you loss some amount of business, it was all profit that you just lost, whereas in fact when you lose -- a real world firm, when them lose, some of it would be we lost the sales but at least we saved some costs, okay. So, that's why when I say this is being conservative.

So, then if we put in 100 percent margin, as I said we'll use here also to be conservative, the ten percent price increase into the formula, what it tells us is that this critical volume for the question of market definition is -- I guess I shouldn't say.

Q You can say that number.

A Well, actually I can't say that number because there are people in the room who could calculate it I think if I told

you that number. Well, actually that part they couldn't, you're right, never mind. Once they know the ten percent and the 100, they can calculate that it is 9.1 percent. It doesn't give away the other number.

Q Okay.

A So, what this is saying to us is that if in response to that price increase shown here that I can't say, the monopolist would lose less than roughly nine percent of its volume on credit and charge cards, then the price increase would be profitable and credit and charge card network services constitute a relevant market.

Q And did you reach a conclusion as to whether the fall in volume in the case of that price increase would be less than nine percent?

A Yes, I did.

Q What was that conclusion?

A The evidence indicates it would be less than nine percent.

MR. CONRATH: Turn to the next slide please.

Q Can you explain the basis for your conclusion that a hypothetical monopolist would loss less than nine percent of its volume?

A Okay. What the numbers, which again I won't say out loud, but the numbers here, what the first bullet is doing is putting them in perspective and saying this increase in the

network fees, which would represent a ten percent increase in the charge to the networks and when you think about what the volume is that's going over the credit and charge card networks would amount to a large amount of money, okay, that increase though, if you think about it from the perspective of a merchant in percentage terms, you'll see it is a small percentage in terms of what the merchant is paying and that number shown after the e.g. is saying, for example, for an average merchant in travel and entertainment, you might see a discount rate go from that one number to the other. Okay.

So, then we ask the question, when a merchant sees that happen, are we going to see the credit and charge card monopolist lose more than nine percent of its volume with these merchants. We're talking about merchants really accounting for nine percent or more of that volume no longer accepting credit cards. And my conclusion is the evidence shows it is extremely unlikely and it's not what is going to happen and the basis for saying that is, first, as we saw, that customers do use different payment instruments differently, they clearly don't consider them to be perfect substitutes and, in fact, it suggests and we know thinking about things like hotels and car rentals that other things are quite imperfect substitutes; seeing estimates that American Express has put forth that cardholder insistence is significant and we've also have heard from merchants on that

and there are also two things which you haven't talked about yet but which factor into my conclusion and I'm going to turn to later today, one is the evidence that American Express profitably raised price as part of its value recapture initiative, okay, and, as we've talked about, that they would face more competitive pressure certainly than the hypothetical monopolist, so that they can do it suggesting the hypothetical monopolist can do it. And the other thing which I want to turn to in just a few minutes is really the lack of a reaction to a very significant fall in debit prices which is the effect of the Durbin Amendment.

Q And so, what is the conclusion from just this calculation whether there's a relevant market?

A As I said, this led me to conclude it is a relevant market.

Q Did you also employ an alternative version of the Hypothetical Monopolist Test in the travel and entertainment segment?

A Yes, I did. I did what in some ways you could think of as a one-sided test because --

Q Next slide please.

A -- instead of taking as the base the part that the network keeps as a middleman, I said, well, let's keep the price increase, the five percent price increase of the entire merchant discount, so to do sort of a belt and suspenders

approach.

So, what I've shown in that second level bullet at the top is what happens if you take, as in this example, if you take five percent of American Express's average travel and entertainment discount rate and so you see that gives us a number and because we're taking a percentage increase of the entire merchant discount including these other parts the network doesn't keep, we end up with a bigger number. Now, doing this, it just would be just too conservative to say, well, wait a minute, the hypothetical monopolist keeps all of the discount because it clearly doesn't keep all of it so what I've done, again being conservative, I said, well, look the only part we'll subtract out is the issuer fees or in the case of Visa and MasterCard it would be taking out the interchange fees and so let's use that as an estimate of what the hypothetical monopolist margin would be when that margin is expressed in terms of the total discount rate as opposed to expressing the margin in terms of just its network fees and you see there's a number there that comes out of, looking at that average discount rate and looking at differences, this was based on data from American Express, looking at differences between what the discount rate is that they take in and then what they pay out to third-party issuers, that yields that number.

So, again, what we can do is use that formula I

mentioned earlier where we put in the five percent price change and we put in that margin number that I won't say and now it comes up with a threshold number which I also will not say because now that threshold number depends in part on proprietary many data but you see --
Q That's the fall in volume number that is --
A Yes. I just need to check, I believe it is okay to say what that basis point change is because I think it's rounded enough that that's a well known number.
Q I think that's right, it is a rounded off generally known discount rate I think.
A Okay. We will, hearing no objection, okay. So, what it is saying is, look, there's a 15 basis point increase, unless it triggers a fall in volume that's bigger than that number shown for the threshold, that would tell us that the hypothetical monopolist would find the price increase to be profitable and therefore the credit and charge card network services to T&E merchants constitutes a relevant market and my conclusion is for the reasons I've talked about and I've identified, will talk about later today, particularly the response to Durbin and other things that it is implausible, it is in fact highly unlikely that that size increase would trigger that type of response because remember what that's saying, given the lack of steering, that that's essentially saying that many merchants measured volume would have to stop

accepting credit and charge cards.
Q So, what is your overall conclusion applying the Hypothetical Monopolist Test to the travel and entertainment market?
A So, both ways are, you know, either of these two approaches I just described give rise to the same conclusion which is that the candidate market is in fact a relevant market.
Q Did you also apply the Hypothetical Monopolist Test to the general market?
A Yes, I did.
MR. CONRATH: Can we turn to the next slide please.
Q Can you tell us what you did using this slide?
A Okay. So, again I took, the starting point, took the network fees because that's what they're keeping, it's a two-sided platform and I took ten percent to be conservative and again I took 100 percent to be conservative in terms of the margin and since I'm using those same numbers in this conservative approach, we again have the same threshold that comes out of that.
Q And what does the next slide show?
A So, what the next slide is doing is saying, all right, we have this threshold but what does it mean when we look at the general market, you know, are we likely to see a change in volume above or below that threshold and again the first

bullet is to put that increase in perspective and on average merchants are paying less than just the T&E average. So, you'll see I've used a different number there, let me put it in perspective, but again we're asking in response to that change that the merchant would see would we see more than nine percent volume lost. For the same sets of reasons as for the T&E merchants, I think the answer is yes. The difference between those is, I think that the effects are particularly strong in the case of T&E merchants but it is the same principles and it is the same types of evidence that lead to that conclusion.

Q When you were answering that I think you said for the same sets of reasons for the T&E merchants I think the answer is yes. Let's clarify yes what; yes, there would be a bigger loss or yes, there would not be a bigger loss?

A There would be a smaller loss than that because of the differences in payment instruments and cardholder insistence and because of what we learned from value recapture and from the Durbin experience.

Q And what does that tell you about whether there is -- this test tells you about whether there's a relevant market and a general market?

A It says that this candidate market is also a relevant market.

Q Did you also perform the alternative version of the

Hypothetical Monopolist Test for the general market?

A Yes, I did.

Q Next slide.

A That slide shows that -- what you see is again we went back to this belt and suspenders approach, that's taking five percent of the entire discount rate and you'll see that's a different number though because the average discount rate overall for merchants is lower than the discount -- average discount rate just for T&E merchants and again I took the approach on the margin numbers of using the difference between what was taken in from the merchants and then paid out in the issuer fees and you'll see that the -- if you compare the slides, you'll see the numbers used are different, although they round to the same number here, so that's why you'll see that the critical threshold for the fall in volume ends up being the same number that we had before and again the parallel reasoning as you can see in that bottom bullet, I won't read the numbers out but if in response to that increase in the fees that the merchant sees, a smaller percentage than that, you know, decide to drop, again measured in volume, that tells us that credit and charge card networks are a relevant market and my conclusion based on the evidence tells us that the drop will be smaller than that and candidate to candidate, the relevant market is an actual relevant market.

MR. CONRATH: Can we turn to the next slide please.

Q Professor Katz, you've been promising us to talk more about Durbin and I think we'll have the opportunity now. So, can you tell us -- you've told us that the market response to the Durbin Amendment was evidence that supports your findings about market definition. Can you explain that using this slide.

A So, as everyone now knows, due to this Regulation II that was implementing the Durbin Amendment, the price of debit network services charged to merchants fell dramatically relative to the price of credit network services. You can ask yourselves what would we expect to see happen if debit and credit were close substitutes. Well, one thing we'd expect to see is that the credit card networks would respond to it because if they were really close substitutes and they were close competitors, then the credit card networks would be compelled by the competitive forces to do something to take into account that the competing product had gotten so much cheaper. If they were close substitutes, we'd expect to see some reaction by the credit and charge card networks. The other thing -- and as we'll see, we didn't see such a response.

Now, the other thing you'd expect to see is if they were such close substitutes, then the merchants would engage in substitution because the merchants would say, well, debit has gotten a lot cheaper, I'll switch to debit, which would

mean in this case I'll stop accepting credit cards and my customers will then switch to debit and, in fact, we didn't see either of those things happen.

MR. CONRATH: So, can we switch to the monitor for the next slide, Your Honor?

THE COURT: To the public monitor?

MR. CONRATH: Oh, sorry, my fault for not having switched back, no. Thank you.

THE COURT: Go ahead.

Q Take a look at the next slide please.

So, I believe the Court has already heard that the Durbin Amendment lowered fees for using debit cards. Can you tell us how significant that change was?

A Well, first off, what this slide is showing is that when -- the regulation went into effect in October 2011 and what this slide is showing is it is giving us some numbers to show that there were these large percentage decreases measured in terms of the interchange rates which again are the biggest component of what the merchant pays but certainly not everything.

Q So, I think you can reference the Federal Reserve data but not the data underneath it.

A So, the Federal Reserve number is showing a 37 percent decrease in the interchange component.

Q And below that is some private data that shows a

different measures of the interchange; is that right?
A Yes.
MR. CONRATH: Can we have the next slide please.
Q Did this change in the interchange rates that was on the previous slide show up in the total amount that merchants paid for debit?
A Yes, it did but it wasn't one for one necessarily. So, one of the things I did was using data available to me and the people working under my direction from a merchant processor, we looked at their data to understand what happened to the all-in debit rate, this is in particular charged by MasterCard and Visa, so this would be acquirer fees and debit network fees and anything else that the merchant was paying because there were some other fees that partially offset the fall in interchange, that they went up for some of them, but what this chart is showing, that horizontal -- I'm sorry, the vertical dashed line is the date of Durbin, what it is showing is in fact the fees did drop, in this case they dropped again by a substantial percentage which is shown in the title of the slide which I guess I shouldn't say. So, this is then taking into account the other components of what merchants were paying.
THE COURT: And the all-in fee means what?
THE WITNESS: So, this would be saying what you're paying to the acquirer and what you're paying to the network

and what you're paying through to the issuer.

THE COURT: All the charges combined?

THE WITNESS: That's right.

THE COURT: Okay.

Q And do these numbers take into account the fact that some banks are not regulated by Durbin?

A That's right, this was the average, this was what the merchant would face average for the regulated rates that came down and then also the unregulated rates which did not necessarily follow.

THE COURT: And those institutions are not covered by the Fed?

MR. CONRATH: The regulation applies differently to large institutions and small ones. Large ones are regulated. The small ones are either unregulated or differently regulated.

THE COURT: And the differentiation is in the statute; is that right?

THE WITNESS: Yeah, I believe it's the statute. Certainly I know the regulation says, it is whether your assets are above or below ten billion dollars.

THE COURT: So, Citibank, Chase, Bank of America, they're all in the regulated side of the house?

MR. CONRATH: Exactly, very substantial amount of the volume of assets is in the regulated side of the house.

THE COURT: All right. Got it.
Q Professor Katz, the date of that change is October 2011; is that right?
A That's correct.
Q So, a debit card network is also a two-sided platform, right, so were there offsetting changes on the cardholder side of the platform?
A Yes, there were some.
Q And what did you see?
A So, to a much lesser degree than credit cards, debit -- some debit cards have rewards and when the interchange fee fell, remember that's the payment that ultimately is going to the issuer, some of the issuers responded by cutting back there debit card rewards but the key point is that debit card rewards were never very important. It turns out there were people who were eligible to get them but didn't even bother to sign up and then also the Fed as part of studying what was happening with Durbin, in that study I referenced earlier, looked at what was happening with debit card rewards and concluded it was a very small amount of money was actually being spent on debit card rewards. So, while they went down in some cases, it wasn't a large offset. The net is that the two-sided price for debit went down by a lot, debit became much cheaper than credit -- sorry, it was already cheaper but the price -- it fell relative to the price of credit.

Q While this big drop in debit prices was happening, what was happening with the prices of the credit card networks?

A Very little, if anything. If one looks, for example, at the -- this is Visa schedule, like with interchange there were just a few small sort of, you might even think of sort of clean up changes but really nothing, nothing wholesale, nothing dramatic.

MR. CONRATH: Can we have the next slide please.

THE COURT: And is that a public or a private --

Q I believe that's public. These I think are Nelson (ph) data.

A They are Nilson data.

Q Nilson data.

(Continued on next page.)

DIRECT EXAMINATION (continued)

BY MR. CONRATH:

Q Professor Katz, in light of this large price decrease for debit, was there a large drop in credit card acceptance?

A No, the merchants did not respond by dropping credit cards en masse. In fact, what you see happening here is that merchant acceptance of credit continued to grow after Durbin, so it wasn't a big drop of the sort that you would have expected had they been close substitutes.

Q So just walk us through how this chart works, what's being measured?

A So what it's showing again is time along the bottom and we've got the dotted line to show us when Durbin went into effect, and what it's doing is for each year it's showing the size of the acceptance network for each of the networks, and as you can see, maybe we should start to look at for 2007 because the differences are easier to see, you can see that the red line is Visa which at the time is the largest and then MasterCard below it, followed by Discover and then American Express, and you'll see as you go over to 2012 that MasterCard and Visa and almost Discover, essentially they've converged in terms of the sizes of their acceptance networks, whereas American Express is still substantially less when measured in terms of number of merchants, but in all of the cases in the period following Durbin the size of their acceptance networks

continue to rise.
Q So can I just as a sideline here ask you to look at the purple line.
The purple line is Discover, right?
A Yes, it is.
Q So am I right that in between 2007 and 2008 the Discover line is growing at a kind of a steep rate.
Do you know what's going on there?
A Yes. Well, this chart doesn't show it, but if you look at other figures that were in my expert report, what this shows is if you went a few years earlier than this, Discover and American Express were pretty close this size with their acceptance networks and then Discover made a concerted effort I believe based primarily on greater use of third party processors and I believe Mr. Hochschild testified as to that effort, but they tried to make -- they made greater use of third party processors, they made a push to expand their acceptance network, and in fact they succeeded to the point that their acceptance network is almost as large as Visa and MasterCard's despite the fact that they're the smallest network if you look on the cardholder's side.
Q So we can come back to that later.
You say that merchant acceptance continued to grow.
Did merchants testify at trial on this topic?
Could we have the next slide, please?

A Yes, they did and what I have here is so the excerpts from trial testimony which are -- it's really the merchants giving voice to the economic principles and the evidence that we've looked at before because you see here in the first one where Sprint was being asked about their reaction to Durbin and did they drop cards and they said no, they didn't even though the cost fell a lot from their perspective is they said they need to do it because their competitors do it and that's a factor that the academic literature has consistently identified as a reason for merchants to accept credit cards because when you think about it, it's really one of the -- the factors that goes into insistence. If I'm a merchant and I've got a bunch of competitors and they're accepting credit cards and consumers want them, I'm going to lose some of that business and so that's Sprint is pointing that out. In Crate and Barrel's case, it's just I think, in their words, a way of saying that these are not substitutes when they're calling them totally different products.
Q The next slide, please?
A So then the next slide is an executive from Southwest saying that they too didn't drop and again pointing out, and this is consistent with the slide we saw much earlier talking about the use of debit and credit with airlines, they're saying look, credit cards are really a big deal to us and, you know, I interpret this as their way of saying we'd be too

worried about losing business.

And then lastly, the Alaska Airlines testimony is speaking to this overall issue but from a slightly different perspective, and they're saying so, did this help you? When it got cheaper, did that put competitive pressures that allowed you to get a better deal from the credit card networks? And the answer is no, which we knew generally because we saw that the networks didn't respond, and again I believe Mr. Hochschild testified to that too, that Discover did not respond in terms of its pricing, and so then when asked why not, again he's saying, well, there's no competition between the two, which is to say they're not close enough substitutes.

Q Okay. So you've told us that you did not see a change in the extent to which merchants accepted credit cards after the Durbin amendment brought debit prices down.

Did you also look at the volume of credit card use following the Durbin Amendment?

A Yes, I did.

Q Can we have the next slide, please?

What does this slide show?

A So, what it's showing is the bar chart showing for these different years that are labeled on the bottom, the purchase volumes on credit cards and on debit cards and what we see is following -- after the Great Recession, you see that both

debit and credit were rising, and in particular the blue bars for 2011 and 2012 are telling you that in the year -- the first full year following implementation of Regulation II, credit continued to grow, and you can see in there there's, you know, no break in the -- no visible break in the trend, and had these been such close substitutes, we would have expected to see a substantial change in that trend. Again, if you go back to the sorts of threshold numbers we were talking about before, it would have to be something much bigger than what you saw.

Q So in other words, in response to the kind of price change in debit that we saw in the fed study mentioned the 37 percent increase in interchange and you looked at the other numbers in the all-in rate, in response to that kind of a price drop for debit, you would expect if they were in the same market to see something different than what's on this slide; is that right?

A That's correct.

Q Could we have the next slide, please?

And Professor Katz, could you summarize for us your analysis on the question of relevant market?

A Okay. So this slide is showing, and what we've been talking about this morning, the typical merchant would expect to lose a substantial volume of sales, that if it didn't accept credit and chargecards, it would lose insistent volume

and what that's telling us is that it's not that no merchant would drop credit cards, because there probably are some that would. There could be merchants today that are right on the edge of whether they want to accept a credit and chargecard or not, but what it's telling us though is for the vast majority of merchants, they're willing to pay, they have this insistent buy and they're going to be willing to pay a premium.

By the way, I should say the vast majority of merchants as measured by volume because there's always questions about really small merchants and what they're going to do and there are lots of them, but the large merchants are where the money is.

So I say that, so the merchants -- we heard merchants testify to, but I think that the broader market data also show is you're just not going to see enough merchants stop taking credit and chargecards to defeat the price increase. So the monopolist is going to find profitable the Durbin Amendment because it's direct insight into that. It provides a natural experiment. We saw the Government come in and change the price and the sense in which it makes it an experiment, maybe a word that participants in the industry are not happy being guinea pigs, but it's saying the Government came in and made the change and now let's see how the market responds, and turns out the market didn't respond by very much, which suggests very, very strongly that debit is in a

different market than the credit market and that's why we didn't see the response, and so that's, you know, strong evidence that supports the ultimate conclusion that credit and chargecard network services to merchants constitute a relevant market and then and that's true when considered for the T&E market and it's also true when applied to the broad market.

Q All right. Professor Katz, continuing with the market power approach after defining the relevant markets, what was the next step of the analytical framework you're going to walk us through?

A So the next step is to assess market power.

Q Next slide, please.

And did you do this in both the T&E and the general purpose general market?

A Yes, I did.

Q Next slide, please.

Can you tell us what you mean by market power?

A So when economists talk about market power, the typical definition is the one I've given in the first bullet is: The ability of a supplier or a set of suppliers, you can apply the concept that way too, within a relevant market to raise the price profitably above the competitive level and for a sustained period of time. So again we're not interested in, you know, could you raise price for a day and lower it before anyone noticed.

Now, there's also a second definition here which is used by -- is used by antitrust economists, but it's also a definition frequently used by the courts which is: The power to control prices or exclude competition.

Q Is market power an all-or-nothing concept?

A No, it's not. There's gradations of it. You might have no market power, you might have a little, you could have a lot. And so where antitrust economists would become concerned or antitrust economics would be concerned is where you have substantial market power, or what some people would call antitrust market power, but it's a continuous concept.

Q Did you find that American Express has substantial market power in the product markets you identified?

A Yes, I did.

Q Take the next slide, please.

What kinds of evidence did you find that indicates that American Express possesses market power?

A Well, as a starting point in the analysis, I looked at the market structure and market share, and as we already heard, it's a concentrated market, but I looked at it in more detail. Then I looked at cardholder insistence, in this case from the perspective of insistence for using American Express cards as opposed to earlier this morning when we were looking at insistence for the credit cards overall, and then the other thing that I did was looked at several dimensions of American

Express's pricing strategy to see what that indicated about the degree of market power they possess.

MR. CONRATH: Could we switch the monitor, Your Honor, and could we have the next slide?

Q So let's start with market structure and market share.

How would you describe the market structure of the credit card industry?

A So I would describe it as a concentrated market, and what this slide is showing is the particular quantification of that, and so you can see that the rows of numbers generally are for the four networks, American Express, Discover, MasterCard, and Visa, and then what the columns of numbers are doing are showing the charge volume in dollars, but then converting those numbers in the sort of paired-up columns, converting those into market shares.

Okay. And I did it for several different years because one of the things economists will look at is, well, does the market share jump around a lot from year to year, and you'd see here while they're changing, it's not that there's some dramatic jumps that you think, well, wait a minute, if I look this year I'll get a completely different answer than if I look the year after.

And what it's showing in one levels we already -- see, what we already knew is that Visa is the largest and American Express is second, but what you see, looking for 2011

for example, that when we look at shares for network services being provided to T&E merchants, you see that American Express is much closer to Visa than they are overall. While they're still second, they're a much closer second and you can see, you know, they're quite a bit above MasterCard.

But, so this is telling us again it's a concentrated market, and that bottom row of numbers I put there is a particular measure of concentration that's widely used in antitrust economics and is used in the courts and it's the Herfindahl-Hirschman Index, and without going into the calculation of it I'll say what it is is it's a measure of concentration, it can range between zero and 10,000, and the horizontal merger guidelines when they talk about it identify different categories of markets and markets above 2500 are markets that are highly concentrated and those are markets then in which there's heightened concerns about the degree of competition in those markets, and as you can see from the numbers that I won't read out loud that for each of these years, that concentration number is above that threshold, that these are highly concentrated markets.

Q I think you can give one of those numbers out loud. I think that one is not a problem. So the third, the most recent year, the Herfindahl-Hirschman Index is what?

A For T&E it's 3297.

Q So you said that you used the shares to measure purchase

volume or charge volume.

Why did you use that?

A For one it's because that's how the -- the money is actually collected from merchants, that's what we've been talking about merchant discounts. All of those things are triggered by the volume of commerce, but I also think it's the single best measure of the importance of different networks to merchants because ultimately merchants care about their sales and this is measuring the different networks in terms of the sales that merchants would have on those networks.

Q Can we have the next slide, please? So let's turn to the general market for general purpose credit card services for all merchants.

What's the market concentration and market shares in that market?

A Well, this is showing the parallel figures and you can see in this one that if you look for 2011 again that American Express now is they're larger than MasterCard, but they are closer to it, but that this is still a concentrated market. And I guess I can read the number, you'll see it's 3270, so again it's well above the -- the threshold for being highly concentrated.

Q Is it possible for more than one firm to have substantial market power in the market?

A Yes, it is. I mean, I understand that this trial is

about whether American Express does, but in the past trial in U.S. v. Visa, for example, the courts had found that both MasterCard and Visa possessed market power.

Q And did you examine the entry conditions in the industry?

A Yes, I did.

Q And how can entry conditions be relevant to a concentration of market share?

A Well, it's relevant to the assessment of competition in that if entry is easy enough, it could defeat attempts at anticompetitive actions. For example, if the competition was harmed among the existing credit and chargecard networks, but that an entrant could come in and not be subject to the same restrictions somehow, it could then defeat that action. So a standard thing for economists to do is also look at the conditions of entry.

Q And what did you find about entry conditions into the credit card industry?

A That it's difficult. I mean, there's a reason that Discover is the last one to come in in 1985.

Q And what is the reason why it's difficult?

A Well, a central reason is the so-called "chicken and egg" problem which is arising from the network effects that we talked about much earlier today where the problem you face as a new network is if you have no cardholders, the merchant's asking, well, why should we go through the cost of accepting

you, and then vice versa if you have no merchants, why does a cardholder want to hold your card.

THE COURT: But is there a cost of accepting an additional card other than just putting a sticker on the door?

THE WITNESS: Yes, there is and that's one of the things you see that while, you know, one of the things the merchant's going to look for, obviously, is the price of the credit and chargecard, do they want to take it, but also if the volume of the credit and chargecard gets too low, the merchant is going to say, well, wait a minute, do I really want to, for example, you know, possibly to have -- it depends on what service my acquirer offers, but do I have to add another account on or is it one more thing to keep track of, do I have to train my people at the point of sale how to deal with the other credit card, and sometimes there can be differences in terms of what they do. So one of the things you'll see happen is a merchant that thinks they're going to have a very small volume at a credit and chargecard network and say look, it's just not worth taking it because there are some setup costs associated with it.

In fact, I think that's one of the things if you go back and look at Discover, they used to have a much smaller merchant acceptance and one of the reasons is, remember, they have a very low charge volume compared to the others. If a merchant would say, well, wait a minute, it's a hassle dealing

with you, you know, there are some costs associated with setting up to deal with you, it's just not worth it. So then when Discover went to the strategy of going to third party acquirers, I think one of the things it did was it could piggyback on things with Visa and MasterCard and then the merchants said okay, it's easier to take you and so we'll do it. So they were precisely to overcome some of these setup costs.

THE COURT: But a new card entry would have some of the benefits of improvements in technology, for instance, where there's just you don't have to put the card through one of these mechanical devices where you get a receipt and you have to sign it, everything's done automatically. It would just be a question of some company being interested in putting up the capital to create a new card.

THE WITNESS: Okay. I want to make sure I understand one part of your question.

If you're saying that the new company would use a new kind of point of sale terminal.

THE COURT: No, I would say use the same terminal and if there's a sufficient profit margin in it, wouldn't that encourage entrepreneurs or venture capitalists to, you know, set up a new credit card offering?

THE WITNESS: To date --

THE COURT: Has anyone even indicated an interest in

doing it?

THE WITNESS: Not that I know of. I mean, if you think of something like, I don't know if you're familiar with Square where you have something you --

THE COURT: Sort of. It's come up here.

THE WITNESS: So Square has a device you can plug in to a mobile -- if you have a smart phone, you can plug it in and then you can actually swipe a credit card and the mobile phone then connects with Square's thing, and it's something that's used a lot. You know, if you go to something like a farmers market they'll do it. It's popular with the small merchants.

THE COURT: I've seen it.

THE WITNESS: Okay. And it's popular I think for two reasons. One, they like you can just plug it into your mobile phone. The point of sale device is a great innovation.

THE COURT: Well, it's good for a small merchant at a farmers market who wants to increase the number of sales.

THE WITNESS: That's absolutely right.

THE COURT: For people who live in a credit environment.

THE WITNESS: That's absolutely right, and what it's doing though is allowing the small merchant to accept the existing credit cards. So what Square is doing is they're putting a -- again, they're piggybacking on the existing

networks, and there's, as I understand it, two parts to their business model. One is this innovative capture device, which is particularly good. The other thing is is that very small merchants pay very high discount rates, and they also I was told, because I was told some of this by executives from Square, but told that there's a lot of hassle for a small merchant dealing, and they were talking particularly about Visa and MasterCard, and that Square acts as an interface for some of that and it makes it much easier for a small merchant to be able to accept things like Visa and MasterCard.

So again, they are innovating and the entire industry is innovating, but they are still doing it piggybacking on the existing networks.

BY MR. CONRATH:

Q So is there any possibility that Square could become an alternative network and be a replacement for Visa or American Express?

A Not today. You know, I can't rule out ten years from now they may have that, but not in the near future.

Q So we have heard American Express say that it must not have market power because its cards are not accepted in as many locations as Visa and MasterCard and Discover.

So could we have the next slide, please?

And my question to you is does American Express's smaller acceptance network prove that American Express does

not have market power?
A No. I mean, it doesn't prove it for several reasons, one of which is just potentially they have the logic backwards, and what this slide is pointing out is that, you know, one of the hallmarks of exercise of market power is raising price and restricting output, okay, and one interpretation, I think the correct one, of what's happened with American -- or part of why American Express has a smaller merchant acceptance network is they've chosen to because they've chosen to pursue a higher-price-lower-volume strategy, okay.
And if we could have the callout on this, this is from an American Express document and there are others talking about the merchant acceptance and I guess this is not -- this is correct this is not confidential?
Q This is confidential.
A Okay. The reason I'm asking, it's not marked on my slide. So let me.
Q Sorry.
A All right. So I won't read it out, but I think the thing is to note is that what it's doing is it's linking their pricing strategy with what that means for the extent of merchant coverage and saying, well, we recognize there's a tradeoff and that higher price then goes along with a lower degree of coverage and they're distinguishing themselves here from Discover, which we've talked about, you know, certainly

historically tried to be merchant friendly in terms of its pricing and even today has lower prices than American Express does to merchants and has also made these pushes to make it easier to deal with them. So part of this is saying, what this is really saying, the bottom line is that American Express's smaller acceptance network today is the result of their decisions.

THE COURT: It's a conscious decision to have this business model?

THE WITNESS: Yes.

THE COURT: Is that what you're saying?

THE WITNESS: Yes.

BY MR. CONRATH:

Q Could we have the next slide, please?

Does American Express sign up every merchant that it would be profitable for American Express to serve?

A No, they don't.

Q So what do you draw what from the quotation in the -- on the slide?

A Okay. Am I correct I'm not supposed to say the name of the company? Okay.

So this is describing negotiation, or this is part of a description, this is deposition testimony because this witness has not yet testified, was describing a negotiation between American Express and this particular merchant and the

merchant was going to drop American Express and American Express was trying to figure out what to do to keep them and they eventually got the offer. They said, well, this is as low as we're willing to go in terms of our price and that's it, we'd rather lose you than go lower. And the witness was asked: Well, at that time, were you at such a low price that if you went lower you would lose money? And it says: No - as it says - probably not. We were above that.

And we'll see that in other instances too that American Express there were times where it believes it could charge a lower price and get the merchant, but it makes the conscious decision not to even though it would be profitable viewed for that specific merchant, and one of the reasons they don't go lower is they're worried that a lower price to that merchant would trigger pressure for them to lower the price to other merchants. So it's not that dealing with this merchant directly is unprofitable. They're worried about what they think is a, what they call sometimes as a pricing spillover, that if I give you a good deal, then I would have to give Mr. Conrath a good deal and I don't want to do that, so I'm willing to turn your business away rather than give you the lower price you demand.

THE COURT: Well, could that be because by giving you a better deal, you're not going below the what you would call the breakpoint, but if I give you that deal, I go to this

other merchant, if I give them the same deal, I'm going to be losing money and I don't want to start down that slippery slope and that's a business decision that I make to preserve my profitability with regard to the other merchant?

THE WITNESS: No, certainly that's -- what they are trying to do that is preserve their profitability and --

THE COURT: So it may not seem fair to this merchant, you know, but in terms of an industry or segment, it may be an appropriate business decision.

THE WITNESS: No, I'm certainly not questioning from their business perspective whether they're maximizing profits and it would be an appropriate decision for them, but it is showing that they are making a tradeoff of saying we'll take higher prices even if that means a lower network size for us.

BY MR. CONRATH:

Q Could we turn to the next slide, please?

What does this slide show?

A Okay. And so what we have here in the callout is, because the slide is hard to read given the size, but what it's showing is it's a table of 50 merchants that were identified by American Express or in some terms like the top 50 merchants that don't take them and I do not believe it was by size. It was by some sense of significance that American Express had. And what the entries in the table are doing, and I've called out one for a particular company, is they said

okay, for this company, you see they have the industry classification, they said here's our estimate of the rate we'd have to give them to get them to sign up with us and then that's in column C. And then the number next to that says okay, we're going to ask ourselves -- let me make sure this is right. We're going to ask ourselves, all right, given that, if we lower the rate to meet what they want, okay, would we still be having a positive contribution? Because their contribution margin is, this is in deposition testimony it was described by an American Express executive as saying their best measure of how much the merchant relationship is worth to them. And so what this is saying is, well, you want us to drop, saying to the merchant, you would like us to drop your price to this level shown in C. What we've calculated is that drop, which is just the difference between D and C, it's relatively -- they've said the drop is that number of basis and then what I've calculated or taken from their accounting is E, which is, well, American Express, what were you saying is the value of merchants in that industry to you, how much -- how profitable is it for you? Okay. And what it's showing is that there's room for them to drop the rate and for it still to be profitable and that's what that number in F is doing.

And now if we look, if we do the other pop-up, if we could, it's still not so popped up, but if you looked at that with all of those numbers are positive, and what it's showing

is in all of these cases, American Express data are indicating that if they were to lower the price to meet the level they think they needed to to get the merchant, that their accounting shows they would still make -- be making money. Now, it doesn't mean that they would be right in every case and maybe they wouldn't get some of the merchants, okay, but what I think this is showing though is, again, they're making this conscious decision, they're making a tradeoff of these higher prices and are recognizing that that may mean fewer merchants, which is certainly, from the point of view of economics, that's their right to do and it's rational, but this is indicating that the size of their merchant acceptance network is something that they're choosing.

Q Could we look at the next slide, please?

American Express has said that there are millions of merchants who don't take American Express.

Does that mean that Amex doesn't have market power?

A No, it doesn't, and one thing that this slide is pointing out, and if we could just call out the pop-up, one thing just to put the millions of merchants in perspective, which I think the Court has already heard, they were generally talking about small merchants, and what this slide is identifying, and I should be clear that this is a slide talking about American Express globally, although parts of it call out specifically the United States and the statements here are relevant to the

United States, they're saying look, it's primarily small merchants where we lack coverage. One of the factors is the higher pricing, but then the other factors are what they call scale and relevance challenges. Relevance is what American Express means when they're talking about the merchant may not see American Express cardholders that often and starts asking is it worth the trouble to deal with them to incur the setup costs associated with American Express, and then operational differences I believe is referring to something American Express has identified elsewhere as certain costs associated with working with American Express as opposed to other credit and chargecard networks.

So yes, there are millions of merchants, they're primarily small merchants, and one of the reasons is because they're small merchants is because of the setup costs that you were asking about earlier.

Q I think you've told us earlier that Discover is a network with a much smaller charge volume or market share than American Express; is that right?

A That's correct.

Q And does that turnout reflected in Discover being accepted at a smaller number of merchants than American Express?

A No. As you said, Discover is accepted at many more than American Express.

Q And what's the reason for that?

A I think if you look at these three factors that one of the differences between Discover and American Express is the pricing, but also I believe that Discover's worked to minimize any operational differences from the perspective of the small merchants.

Q So those are choices the networks make?

A Yes.

Q All right. Professor Katz --

THE COURT: We heard testimony yesterday having to do with the fact that a concern for American Express is that because their coverage was substantially less than Visa, for instance that when you go to a shop in San Francisco and offer your American Express Card, there's a one in two chance that the merchant's going to say we don't take that and that that kind of rejection could have an adverse effect on the use of the card by that customer at other merchants who do take the American Express Card because either they don't want to be rejected or it's a nuisance to have to put forward a second card and it's just inconvenient and so this works against the interest of the American Express brand, and so on the one hand, you're saying that they reject merchants for whatever reasons they have, and on the other hand, I'm being told that they're concerned about the non-acceptance of the card in one out of two locations in San Francisco.

How do those apparently conflicting facts get explained?

THE WITNESS: Okay. I think there are a couple of things there.

So one, they do face a tradeoff. I mean, they would clearly like to be able to get, I believe they'd like to be able to get every merchant, if they could get them, at a high price. So partly they just have to make a tradeoff and some extent then they face a tough choice: Do you want the high price or do you want merchant acceptance?

But I think another thing to keep in mind, they said one out of -- you know, when you go to use your card, one out of two times it will be rejected, I think that that would be a very, very, very unrepresentative consumer, that if you look at this, it may be true that half the merchants don't. I haven't looked specifically for San Francisco, but the merchants who don't take American Express are going to be the small ones with low charge volume. So if you're a tourist and you go to San Francisco and you pull out your American Express Card, certainly weighted by dollar volume it's going to be 90-some percent of the time you're going to be able to use your American Express Card.

So when they do it in terms of the number of merchants, it gives a very different picture than if you look, well, okay, how are people really spending their money. So I

think that's a big part of it. People use their American Express cards all the time in San Francisco.

The other thing is when they say, well, look, if I don't -- if this merchant doesn't take it, I may not use it at ones that do, the merchants that do take American Express are free to use the American Express signage and to have it up, and so if I'm at the merchant and I see that it says "We take American Express," I'm not going to be concerned that my American Express Card's going to be rejected. So they do have ways to educate the customers about where it's used.

THE COURT: All right. Thank you.

BY MR. CONRATH:

Q I should say you live in San Francisco?

A Yes, I do.

THE COURT: I had no idea. I really had no idea.

Now he's a fact witness.

MR. CONRATH: What can I do, Your Honor?

Q All right, Professor Katz, I'd like to move to the second topic you mentioned, which is insistence.

What does American Express mean when it uses the term "insistence"?

A So they're using it similarly to the way I used it this morning talking about a credit and chargecard, the hypothetical monopolist, but they're using it talking specifically about American Express cards, and so the concept

of insistence is getting at if I'm a merchant and I accept American Express cards, I'm going to have some volume of business that uses them and if I stop taking American Express cards, I'm going to lose some of that business, and insistence is a measure of how much I'm going to lose.

Q And what's the relevance of insistence to your evaluation of whether American Express has market power?

A Well, insistence is a key source of market power because it's explaining why it is that merchants are willing to pay more for American Express.

Q And I should say here is insistence your term, or did you pick it up from American Express?

A I've certainly used the word before, but using it as a term in talking about insistence and insistence value, that's from American Express documents.

Q Could we have the next slide, please?

MR. CONRATH: And this is confidential, sorry. Are we still on confidential mode?

THE COURT: Yes, we are.

Q How does the concept of insistence enter into American Express's pricing to merchants?

A Well, what this document is showing is how American Express thinks about what insistence means for its pricing. So as part of how it evaluates things. And what the document is doing is it's starting with the baseline value and what

that baseline value, as you see in 1 how they're interpreting it, they're saying, well, what does it cost the merchant to accept Visa and MasterCard's credit cards because Visa and MasterCard credit cards are their big, that's their competitor.

So then they're saying, well, so we could charge that amount because, you know, we go back and think about in terms of the logic of the slides with the green and the red boxes. If we just charge the same amount as Visa and MasterCard, then there's not going to be a rate differential. So the merchant's not going to have an incentive to want to move away from us because they'll say look, we're the same price and Visa and MasterCard, why would the merchant care which one is used.

All right. So then they ask themselves, they said, well, we'll start from that baseline of our competitors and now let's take into account insistence, and what's shown here, and maybe we could highlight it in red, what they do is they're asking the same question of the merchant: How much are you going to lose, okay, if you stop taking American Express? And so they calculate this insistence value, if we could do the next callout, and they break insistence down into two parts. The CM is for cardmember. They're saying look, there's walk-away insistence, the people aren't going to shop with you so you're going to lose the business, and then the

other callout is what they call the spend less, which even if they continue to shop with you, they're not going to spend as much money. And so what the boxes above that are doing is saying we're figuring out then how much money is that worth to the merchant, right, given that they know that the merchant would lose business by not accepting us, American Express, so how much more can we charge than MasterCard and Visa are charging for their credit cards, and this is again is charging to the merchant. So that's what those amounts are saying is this is how much more that we can charge.

Then the rest of the diagram is showing things or ways American Express creates value other ways. And then if you go to 4 they're showing certain things with operational costs for merchants, they're saying, you know, these policy, their policy driven costs for merchants, and again that gets back to this question that the issue for merchant, it's not just about what it pays for a payment instrument or what it pays for a credit and chargecard. There are also other costs associated with it.

So they very much look at insistence as something to think about when evaluating their pricing because it's giving a sense of what sort of premium they can charge over their competitors Visa and MasterCard and for it still to be rational for a merchant to accept it.

And now if you go to sort of the tall white box on

the right side next to the black box, what they've done there when they say the value surplus and they say when we put all the pieces together and the biggest components of that value surplus are the insistence numbers, when we put all those pieces together, that's how much we're worth to the merchant than MasterCard and Visa. That's really the language I was talking about before, that's what you're going to lose because of the insistence and some other factors if you don't take us.

And then what they're doing in the black box is their labeling. If you look at that dashed line, the bid above says well, this is how much we charge today, the part above that dashed line, this is how much we charge today and this is showing, and this is just an illustrative example as it shows here, it's saying our value to the merchants that we get from switching to other things is bigger than the premium we are charging. So what this is showing though is that American Express recognizes insistence is one of the things that gives them the ability to charge merchants higher prices.

THE COURT: But they don't charge the full value surplus?

THE WITNESS: No, they generally don't.

THE COURT: According to them.

THE WITNESS: And I agree with that and we will come to that, Your Honor, we'll look at some specific calculations by industries that this is clearly something they use as part

of an overall process, but they're not literally going up to these numbers because as we'll see in some cases the numbers are very high, we'll see when we get to them, but they're very high numbers, but what it's doing is it's identifying the source of the ability to charge higher prices and then giving a sense that there's a lot of room for them to charge the higher prices, but, you know, American Express does bargain with their merchants, so merchants are getting surplus too and, you know, why I'm going to focus on here's why they can charge merchants more, of course there are things offsetting that and what we're looking at really is the balance and that's why they're not going to get all of that surplus, some of that is going to go to merchants. But the point that I take away from my economic analysis though is there is a bunch of surplus there and which is translating into the ability to charge higher prices.

MR. CONRATH: I probably should have mentioned, by the way, Your Honor, that you might recognize this document and one very much like it that Mr. Funda talked about earlier in the trial.

BY MR. CONRATH:

Q And can I just ask you one thing, Professor Katz.

That baseline cost, the starting point on this calculation is Visa and MasterCard credit; is that right?

A Yes, that's what it says.

Q It's not blended credit and debit?
A No, it says credit.
Q Could we have the next slide, please?
What are the sources of American Express's cardholder insistence?
A Well, American Express breaks it up, and remember before I promised or threatened to show those insistence calculations, what else was in there, but they break it up between you can think of it as consumer insistence or people sort of generally and then they're also going to look at cooperate cards because they're the leading network for corporate cards and for most of their cardholders, a big -- or a majority of their cardholders the big source of insistence is the rewards. People want to use their American Express cards because they get rewards and American Express operates a very attractive rewards program.
And what this document is doing is another presentation to Alaska that's representative of others in which they're explaining in this presentation that they do have a good rewards program and that because of that they have customers who are loyal to them and they are pointing out to Alaska Airlines that a lot of the charge volume in American Express is coming from cardmembers, their term for cardholders, that are in a loyalty program.
Q Could we have the first callout?

A So it does have all of them. They're talking about their point that they have a good rewards program and they're saying to Alaska you should care about that because this rewards program is going to mean that our customers are insistent and therefore you should be willing to pay our rates.

Q Could we have the next slide, please? And you mentioned that Corporate cardholders are another source of insistence.

Can you explain what this slide shows?

A Well, before I get to this slide, if I could just say one thing about why should we care what's on this slide.

So American Express is the leading network for corporate cards and they are the leading network because they provide a lot of their services and value of using their Corporate card and they provide accounting and things like that for the users, and a common thing for a Corporate card account is for the company to require its employees to use the Corporate card when spending for business. They have corporate mandation programs and even if they don't have a formal corporate mandation program, corporations will also have a policy though saying look, if you don't use your American Express Corporate card, we'll pay -- you know, we'll reimburse you, but it may take longer, there may be more hassle, but when you do it through the Corporate card program it's going to be smoother for you as an employee.

So what that means is that Corporate card use has a

high level insistence because of things like corporate mandation, and what this document is showing us is that for some merchant segments, and it will come as no surprise particularly in travel and entertainment, that Corporate card volume is a very substantial part of the American Express volume at a merchant. So again if you look at the first line, if you look at airlines, you can see in -- well, I just won't say the number. If you look at column B, you can see for airlines that it's a very substantial part of the volume of American Express -- this is saying that's the percentage at an airline of American Express charge volume that's on a Corporate card. So it's -- it's a big part of what's going on, and that's relevant because of the insistence of Corporate card users, and what you can see is I've calculated some averages shown in column B in bold and you can see generally the use of Corporate cards is much more in travel and entertainment than in others. So that American -- it's part of the fact that American Express is particularly important to travel and entertainment merchants.

Q And that percentage is in column D, as in dog?

A That's right.

THE COURT: And the Corporate card is a negotiated agreement between the corporation and American Express, correct?

THE WITNESS: Yes, and in that case, American

Express as an issuer, but yes.

THE COURT: As an issuer.

THE WITNESS: Yes.

THE COURT: Right.

THE WITNESS: That's my understanding.

THE COURT: So there is a benefit for the corporation that it sees in requiring the use or authorizing the use of the American Express Corporate card for its employees.

THE WITNESS: Yes. No, clearly American Express is very successful as a corporate card issuer.

THE COURT: So they're giving something to get something in that situation. It's like a rewards program for corporations, if you will, because the corporation is obviously negotiating a price that is beneficial to the corporation.

THE WITNESS: That's correct.

THE COURT: So they have, there's an added player in the equation, isn't there? You have the member who's getting rewards who's holding the card, you have the corporation who has an agreement with American Express which is arguably beneficial to the corporation.

THE WITNESS: That's right.

THE COURT: And then you have American Express the merchants over there somewhere.

THE WITNESS: That's right. If you went back earlier to my diagram that showed the customer at the point of the sale with the merchant, we could have expanded that and we could have had, you know, the accounting office or somebody, as the company was essentially steering the card user at the merchant, saying okay, we want to steer you to using your American Express Corporate card because that's what's good for the company.

THE COURT: So that's a form of steering, but it's by a third party.

THE WITNESS: That's right.

BY MR. CONRATH:

Q And so just to add the other actor in here, the merchant, what does it mean to the merchant that American Express has this corporate card relationship that involves mandatory use by the employees?

A Well, the merchant, as we've been saying, is going to be concerned with the insistent volume, and so if you were a hotel, you would be quite concerned that if you didn't take American Express you're going to maybe be hard-pressed to get American Express Corporate card users to come to your hotel and that is a significant piece of money.

Q Can we look at the next slide, please?

How does American Express use insistence to evaluate pricing?

A I'm tempted to plead that we can go eat lunch before I walk you through this.

THE COURT: You wouldn't get an argument from me on this slide.

We've been through this before.

MR. CONRATH: Well, you all --

THE COURT: I have nightmares over this one.

THE WITNESS: This is not above your bed.

THE COURT: Are you going to make me understand this? Is that your job? The last witness I'm not so sure.

THE WITNESS: That may suggest -- well, there's some --

THE COURT: Well, why don't you try.

THE WITNESS: -- high-level take-away.

THE COURT: Better we should deal with it on an empty stomach. Go ahead.

MR. CONRATH: All right.

BY MR. CONRATH:

Q So does this slide show a methodology?

A Yes, it does.

Q And can you walk us through how American Express uses insistence in this pricing methodology?

A Okay. Well, this is not only sort of using it, but how you calculate it. So let's break it down into some pieces.

So if we were to look at the first yellow line,

okay, where we see it says in blue it says "industry category" and then it gives a charge volume and then it has various numbers under it says "consumer walk away insistence," "consumer spend less insistence," and then "total consumer insistence." What it's doing here is it's putting in estimates for this particular merchant category of the different kinds of insistence based on American Express's experience and data they've looked at and they're saying okay, these are estimates we have of that. They're combining those different estimates of different kinds of consumer insistence to get a single consumer insistence number, okay, and up in the blue, which I will not walk through in the dotted blue lines, is talking about how some of that's done, but the main thing to take away is they come up with a consumer insistence number and then also in a different column they come up with a corporate insistence number, okay, which is see it's a higher number. If you look, it's the third number from the right that's in yellow and they have -- okay. So they come up with they have a corporate number, they have a consumer number, and then what they do is they weight those. They say, well, in this particular consumer segment, how important are consumer cards versus how important are corporate cards? So the overall thing to do is they come up with a weighted average which is what's labeled there as "total insistence." It has the dashed blue lines around it in the box. So without going

into details, it's to say they build up to get an insistence number.

Q What is that insistence number intended to represent in this calculation you're about to do?

A As I said, it's representing what percentage of the American Express charge volume the merchant would lose if it were to cease accepting American Express cards.

Q And that's because that's the percentage that is so insistent that it would walk away or would not come back as often?

A Well, it's that it would walk away or would spend less or would be subject to corporate insistence.

Q Okay.

A Now, the next yellow line is really doing part of again what we were doing this morning because it's the same logic being applied at a different level, but it's always coming back to the merchant's decision and how do you trade off price against quantity. What the next line is saying is, well, we need to take into account when you lose the business as a merchant, how important is that to you that you've lost that business. So if you look at on the left in that second yellow column, there's a number there, the business as usual operating margin. So that's an estimate for this industry what the operating margin would be because that's what we're going to multiply, or they're going to multiply in this

instance, that's what's going to get multiplied by the insistence in order to figure out how much the merchant would lose by not taking American Express cards and that's what that callout is doing because --

Q Which callout is that?

A I was going to say that, at least with my eyes the orange. I just couldn't read.

So it's brought out at the bottom, but notice it's saying how much is insistence worth incremental value and they're saying it's the total insistence times the operating margin. So if you think back this morning to the red boxes, remember we were doing the same sort of calculation where we said, well, what's the insistence volume and what's your margin. I didn't break out the particular kind of margin, but what's your margin because you're saying, all right, well, that's how much it's worth to the merchant and therefore how much it's worth to American Express that the merchant would lose that business.

Now, the other parts of that calculation in that yellow line is what they refer to as a negative value to -- is American Express putting a price on some of the operational issues associated with dealing with them from the merchants' point of view, and so they do a set of adjustments.

THE WITNESS: But to touch on something you mentioned earlier, Your Honor, when you get to the number at

the end, the one that has a green arrow coming from below it, that's where they said here's how much more we're worth. Well, let's compare though what our premium is today, the number in red, and they said okay, we come up with a bottom line number.

Now, that bottom line number in this calculation is not based on trying to get all of the surplus, and in fact as they've indicated here, the particular calculation shown here they're trying to get half of that, they're talking about what if we got half of that surplus. We'll see that they often typically price even lower than that. So as I said, they're not using these numbers to get every last bit of it, but it is giving them a sense of the room to raise prices or the room to charge prices higher than their competitors are charging for credit and chargecard services.

MR. CONRATH: Any more questions on this from the Court? I don't want to leave this very attractive chart.

THE COURT: Well, the example is just the first example on the next chart; is that right?

MR. CONRATH: Yes.

THE WITNESS: I would have to --

THE COURT: You've got a chart that goes by industry categories and so forth, but the first example QSR.

MR. CONRATH: Quick service restaurants, Your Honor.

THE COURT: Quick service restaurants is just the

example that's used on this first chart 82.

THE WITNESS: That's right.

THE COURT: And you would apply the same basic analysis to each one of these subgroups.

THE WITNESS: That's exactly right.

Now, 83, the slide 83 is essentially taking that first yellow line that we talked about on 82 and then applying it to the different industry groups, so that's why you see that called-out column is -- that's the insistence number.

THE COURT: Right, on the right.

THE WITNESS: That's absolutely right.

Q Anything else to explain about this chart, Professor Katz?

A No.

MR. CONRATH: I've got maybe one more chart and we'll wrap up this topic, Your Honor.

THE COURT: All right. Let's do the last chart then.

Q Professor Katz, slide 84, can you explain what that is?

A So as we just saw with slide 83, there was essentially taking that first yellow line on 82 and carrying those calculations out for a range of merchant segments. Slide 84 is now doing that same thing but in parallel with the second yellow line.

We put that somewhat in English, what slide 84 is

doing is saying, well, let's look at the merchant's estimated margin and then let's talk about how that coupled with the insistence numbers we just have seen, what does that mean in terms of the incremental value derived. So again, how much of a premium can we charge making these other adjustments. And then what they have here is this calculation that's blown out saying, well, given where our pricing is today, given our estimate of the surplus value we have above our competitors Visa and MasterCard's credit cards, how much more could we charge so that we would be taking 50 percent of the surplus value.

As you can see here, these numbers, I mean, these are large numbers that you think about them generally relative to the overall merchant discount rate and that's one of the points I'm making. I said they're not actually charging, like say the first number for QSR, they're not charging that much more than Visa and MasterCard. So these numbers are providing ballparks, but not actual numbers, and you can see that's generally true, although you see some cases where they're estimating actually that they don't have a lot of room to grow and you see in one case it's actually negative, but most it's quite substantial.

(Continued on following page.)

Q So how does American Express use these insistence estimates when it's dealing with merchants?
A American Express has merchant presentations, where they bring this sort of calculation to the merchant's attention, and they say to the merchants this is why it's worth it to you to take American Express, because if you don't, you're going to lose volume, and that volume is going to cost you money. So they show them -- weighted by the profit margin. If you go back, if you remember, we saw that presentation of Alaska Airlines, they were doing exactly this kind of logic. Although, there, they were saying it only takes a really low level of insistence for it to work, given how high their margin is. Here, they're actually calculating out a low level of insistence.
MR. CONRATH: Your Honor, I've got three or four more minutes to wrap up this insistence; is that all right?
THE COURT: Go ahead.
Q Does your analysis, Professor Katz, of insistence imply any firm in any industry that has a core of loyal customers has antitrust market power?
A No, it does not.
Q Why not?
A Let's talk about why it does, in this industry, it's because we're talking about two-sided platform, and we're talking about merchants being faced with this all-or-nothing

decision. So we talked about this a little bit earlier today. I would say most markets or a lot of markets what happens is, if you're a merchant, you're a customer, if you're buying something, and the seller raises the prices, there's a set of people that say, wait a minute, I'm going to leave because there's another product that's almost just as good. That's what I meant when I was talking about competing with people at the margin.

Here, we're talking about insistence on the cardholder's side and how that translates into the merchants being only -- calculating that they have to pay these higher prices because of what's happening on that side. Because when the merchant looks at it, he says I have an all-or-nothing decision; I either accept credit cards or I don't, and in this case, I accept American Express or I don't. And if I drop American Express, it's those -- the people on the other side of the platform, it's the core ones that are going to matter, and, typically, that's not what happens in a market.

Typically, you don't have this kind of all-or-nothing decision, you have the -- I raise the price and I'm going to lose the people at the margin. Here, it's there's a sense in which the merchants are getting locked in by that core, so it's a different thing arising; because we're talking about a two-sided platform, and we're talking about the behavior on one side and what that means for the demand by

the parties on the other side.
Q So American Express says that the source of their insistence is just that they make a high quality product for cardholders, and then they say having a high quality product cannot be a source of market problem, so let's break those up into one part at a time. Do you agree American Express offers a high quality product for cardholders?
A Certainly many people think that's the case. And there are people for other ones, but it's clear that there are a lot of people who see American Express as offering very high quality products, and that's one of the reasons they're willing to pay the annual fees.
Q Do you agree with the proposition that having a high quality product cannot be a source of market power?
A No, I'm certainly not. Part of why that question would even come up is -- maybe it's a misunderstanding in the sense that having market power itself is not a bad thing. It's certainly recognized principle in antitrust economics. If the way you get market power is by competing and coming up with a really high quality product in something that is better than what anybody else has, there's nothing wrong with that. In fact, it's a good thing you competed and been so successful. The concern of economics is abusing the market power or trying to get market power through means other than completing, but there's nothing wrong with getting market power by doing good

things, by competing on the merits, and that could include having a very high quality product.

Giving an example of that, suppose you have a pharmaceutical company that innovates and comes up with a drug that's just -- maybe all the other treatments, you'll live for a few months and then you'll die; you take this drug, you'll survive. Obviously that's an extremely high quality product, and it's a great thing that they've come up with that innovation and they've done it, but by no means would that imply they don't have market power. In fact, you'd think with a drug like that, you'd have market power, so it's just wrong to say that if the reason I have market power -- it's wrong to say that high quality can't be a source of market power, as a general matter.

And, then, moreover, here, we want to take into account the fact that we're talking about the two-sided platform, and we're talking about what are the implications of having high quality on one side and what that means of market power, the overall two-sided platform, and in particular what does it mean for how it affects demand on the other side of the platform.

Q So the question, if you have market power because you have a high quality product, is what do you do with that market power? Is that the relevant antitrust question?

A That would be a relevant antitrust question, yes.

MR. CONRATH: Your Honor, this would be a good place to break.

THE COURT: All right. What we'll do now is we'll break until 2:30. And about how much more time will you be on direct? Two hours?

MR. CONRATH: Approximately two hours.

THE COURT: And then we'll start cross. All right. Thank you very much.

MR. CONRATH: Thank you, your Honor.

(Lunch recess.)

THE COURT: Please be seated, everybody. Okay.

MR. CONRATH: Thank you, your Honor. If we could start the afternoon with the monitor on confidential.

THE COURT: Yes, it is.

I remind the witness that he is still under oath.

THE WITNESS: Okay.

DIRECT EXAMINATION(CONTINUED)

BY MR. CONRATH:

Q So, Professor Katz, I believe the third item in your list of factors that you considered in evaluating whether American Express has market power was evaluation of some elements of America Express' pricing strategy; is that right? That's where we are?

A That's correct.

Q Would you take a look at the -- this next slide and tell

us how this slide relates to pricing strategy.

THE COURT: Slide number?

MR. CONRATH: Slide Number 85.

THE COURT: All right.

THE WITNESS: One element of America Express' pricing strategy has been to have premium pricing, which is to say to charge more than the competing credit and charge card networks. And what this slide is showing are calculations of those premiums done using -- you'll see methodology of America Express'. So, again, things are broken down in Column A by merchant segment. Column B is America Express' discount rate. And then the other columns, there's two sets, you'll see, for MasterCard and Visa. The All-in rate, as we talked about, is the rate for Visa and MasterCard, including the interchange, and acquiring fees and the other ones. And that is using America Express' estimates of what MasterCard and Visas' columns are on different cards.

So one of the things that makes this a little more complicated is that MasterCard and Visa charge different rates to merchants for different cards, and so it's necessary to average over those things. And the so-called All-in rate is taking a look at that. And then you'll see, for example, Column D is saying here's the estimated difference between America Express' discount rate and MasterCard's, and where it's expressed is a positive number. That indicates that

American Express is charging a higher price to merchants than, in this case, MasterCard but in other columns Visa. And where it's negative, it's saying the reverse, American Express is cheaper.

Now, the second set of columns -- let me lay that out -- is the mix adjusted rate. And what that's doing is reflected in American Express' methodology, where American Express is attempting to get at the issue of how to deal with the fact that different Visa cards, for example, have different rates on them. American Express is saying the types of cardholders we have would tend to use expensive Visa cards, and so we want to take that into account when comparing our rates with theirs. And so that's what the mixed adjusted rate is doing.

And what one sees from these numbers, in the vast majority of cases, American Express is charging a premium, and it's charging a premium over other networks, MasterCard and Visa, that are networks with market power and in a concentrated industry. And so it's notable that they are, in fact, able to charge a premium over those other networks. And so that's one element of their strategy that's consistent with -- supports the notion or the finding that they possess market power. And so what we've gone -- from before lunch we were talking about various calculations American Express was making in potential premiums, and this is showing that they

charge actual premiums. And, of course, as we were discussing before lunch, these are much smaller than the premiums they calculated. They're not trying to take the full amount of those calculations, but they are premium.

Q So could you just point us to an example here, maybe using the average rates of where one would look on the chart on slide 85 to find a comparison with American Express and Visa under both the mixed adjusted rate and the All-in rate.

A So you'll see that the comparison -- so the America Express' average rate is shown at the lowest number in column B. And then Visas all -- their average All-in rate is shown at the bottom of Column E, and so then that's compared at the bottom of F, and so you see they're indicating the premium that American Express is charging over Visa. Then if you look -- go further over to Column J, the right most column, that's using America Express' methodology to make adjustments that they think are appropriate to make it an apples-apples comparison, and so by that measure as well that American Express is charging a premium over Visa.

Q And these data were used or these data -- these numbers were calculated on the most recent reliable data that you were able to get from American Express through the discovery process; is that right?

A Yes, I believe so.

Q Okay. So what -- just sum up for us the conclusion for

what this should -- ought to tell us about whether American Express has market power?

A This supports the finding that they do, the fact that they're engaged in premium. Pricing I should point out even if they didn't have premium pricing against Visa, that's still consistent with having an exercising market power, given that Visa itself has market power. But the fact that they did charge more than Visa is a further indicator.

MR. CONRATH: Could we turn to the next slide, please.

Q Is there another element of America Express' pricing strategy that is relevant to whether American Express has market power that is discussed on this next slide?

A Yes, something else that is consistent with the finding that they have significant market power and, therefore, reenforces their finding is that they engage in price discrimination. And what's shown on this slide is a way of calculating what they're doing as a network, and so it's taking -- let's start with the first row, to the industry of other transportation. What it's showing, a number for the discount rate, and so that's saying here's what we're charging on average, that merchant category. Then it's subtracting off from that the issuer rate it has in an agreement with a third party issuer.

So the difference between those two, shown in Column

D, that difference is reflecting what American Express is keeping -- in this case, actually, both as issuer -- I misspoke. In this case, what it's keeping as a network, but also it has acquiring built in. Although there's no -- that's the best I can do in determines of disaggregating their data. And there's no reason to think that the acquiring fees -- costs are significantly different across these different elements. And so when you look down at Column D, one of the things you'll notice is there's a wide range of numbers. While there are several that are sort of clustered near each other, there are also some numbers -- several multiples of the other.

So it's showing that there are -- why differences in the pricing that they're keeping as a network, and that these differences are larger than any plausible price -- cost differences, certainly larger than any underlying cost differences that I was able to identify.

Q And so what does that tell you about price discrimination?

A Well, this indicates that they are engaging in price discrimination. And one of the prerequisites for being able to engage in price discrimination is to have some degree of market power.

MR. CONRATH: Could we look at the next slide, please?

Q What does this next slide show?

A So this is another way of getting at this question of price discrimination, because, again, it's not looking just at differences in prices but differences in prices relative to cost. And what this is looking at is the contribution margin, while we talked earlier, that it's American Express' estimate of how much they gain or what their profit is from the merchant relationship. Now, again, I want to point out that this contribution margin is going to be for the whole company, because even though this case is about the networks and American Express' operation in the network, they are integrated into the other things.

And so sometimes I've had to look at the integrated numbers to get a sense of what American Express is doing. And what these numbers again indicate is that there's a wide range of margins here of differences between the revenues that American Express is bringing in from these merchants and then what its costs are. So, again, this is indicating price discrimination, which they would be able to do only if they possessed market power.

MR. CONRATH: Could we turn to the next slide, please. And this slide can be public, your Honor.

Q So, Professor Katz, I would like to return to value recapture. I think you said this is a third element of America Express' strategy that you consider as being relevant

to market power; is that correct?
A That's correct.
Q Can you explain what value recapture shows, about whether American Express has substantial market power?
A So as we were discussing earlier today, they had -- value recapture was a targeted -- set of targeted price increases, and it illustrates my conclusion. It illustrates the successful exercise of market power. American Express was starting from prices that were not below the competitive levels. They were prices -- they were being charged in a concentrated industry with other firms have been found to have market power, that were being -- the prices were in the presence of the anti-steering rules, which certainly my conclusion, further elevated the prices. I think there's no assertion by anyone that they're actually lowering the prices.
The procompetitive benefits don't have to do with that. We're starting from a level where the prices are at or above competitive level and we're raising those. And when we see what happened is they increased the prices on the merchant side. They were not offsetting changes on the cardholders' side, so that the net price, if you will, the two-sided price, increased, and that those two-sided price increases were profitable. They both raised revenues and they raised profits.
MR. CONRATH: Could we look at the next -- can we

change the monitor and then look at the next slide? Sorry, your Honor. Okay. Next slide.

Q Professor Katz, is this an example of value recapture?

A This is showing the discount rates American Express is charging to the top ten airlines plus another airline category over the period starting before value recapture and running through. And if you look at that, if you look, for example, at the top line, Delta, I won't call out the numbers, but you'll see between the start of the period and the end, there was a significant increase in the discount rate charged to Delta. And if you go down the list, comparing them, you'll see that with the exception of Air France that all of them went up, and that American Express instituted price increases for the top nine airlines.

MR. CONRATH: Could we take a look at the next slide, please?

Q What does this next slide show?

A Well, surprisingly, American Express valuated the profitability of what they were doing, and what this slide is showing is the results of one of their analyses, where they were looking to assess how it had done. And what this is doing is identifying the effects of the program on their revenues and on their average discount rate. And as you can see, in the one number that's circled in the red ellipse, it's saying that their U.S. weighted average discount rate went up

by that number.

And the other thing they're doing is they've identified the total benefits or the cumulative benefits of these different initiatives, because the way this chart is working is that box shown for 2006 is the incremental PTI they got from the 2006 initiative. And then the box next to it, the white box, if you go over to 2007, is saying what were the affects of those 2006 initiatives when we continued those through to 2007. And then that's why that box carries over to the other years, including the forecast. And then that black box, if you look at 2007, that's on top of, then that's the value of the 2007 initiatives that then carry across, and that's why the later years have more boxes.

And they concluded -- and they were projecting that the total amount of that would be that number shown circled in red, where it says "incremental pretax income," although I should note that in deposition testimony that they're saying that that's more of a revenue change, and there were some offsets, which we will talk about, but, as we'll see, the offsets were far below that number.

MR. CONRATH: Can we take a look at the next slide, please?

Q So what does this next slide show?

A So this is one we looked at before, and as an example, but just generally illustrating the point that almost no

managed merchants dropped, so American Express didn't suffer from attrition from doing this, and that they generally gained from doing it. Although, as mentioned in the title of this slide, it's not that this -- that they just automatically did everything they wanted to, they did in some cases have to give incremental marketing funds to merchants, so that was a bit of a concession.

But if we turn to the next slide, we'll see -- this is a slide, an American Express internal document again -- that they concluded -- as we can see the pop up, they concluded that the revenue benefit they got from this, from having value recapture, in their words, was substantially larger than the advertising promotion, so substantially larger than the marketing funds that they had to give to merchants. So they concluded that these price increases from profitable for managed merchants. And this is one document, but there are others that reached the same conclusion, and their executives have said that they found it overall was profitable.

Q All right. That was managed merchants, the large ones. Did you also look at unmanaged merchants?

MR. CONRATH: And can we have the next slide?

A Yes, American Express did look at it. And, again, this is the slide we saw earlier this morning, coming back to look at more detail, where now we have in that first call-out is

the revenue benefit that they saw from the deal. Earlier this morning, we talked about the offset from incremental cancellations, and you can now see them together in perspective, that the cost of the incremental cancellations was far below the revenue benefits they saw themselves getting.

And, then, as we discussed earlier, they weren't sure exactly what the suppression rate was, the incremental suppression, when it triggered. But they said that they were reasonably confident they were below that, so that their estimate was value recapture was also profitable to the unmanaged merchants as well.

Q So when thinking about market power, is America Express' value recapture program evidence of American Express having market power in the relevant markets?

A Yes, it's evidence of their exercising it, because they did these price increases in both T and E markets but also non-T and E markets. They raised the prices certainly no lower than competitive levels, and they did to profitably. In fact, one of the things that's notable is they're saying that their revenues went up. Typically what you would expect to see happen when a firm raises its prices is the revenues might fall but its costs would fall further, and that's why you might do it. Here, they're saying there was so little response -- at least with managed merchants, there was so

little response we raised the price. Revenues went up even before we had to get any benefit from saving -- normally what would happen if you raised your price, it would lower the volume, and then you would have some cost savings.

Q Is what that what would happen in a competitive market?

A Well, what in most markets you would expect that to happen. So you might say, well, we've raised their price; maybe our revenues have gone down a little bit, but our costs have fallen by even more. Here, what they're saying is when they raised the price, it actually raised their revenue, which is somewhat unusual for firms. I think it's further evidence that they had market power.

MR. CONRATH: If we can turn to the next slide, this one can be public, your Honor.

Q Can you summarize for us, Professor Katz?

A All right. So what this slide is doing is just -- we were looking at it before lunch and just talked about now that -- look at the different pieces of evidence speaking to whether American Express possesses market power in the two relevant markets, that in each case the market structure is one that is concentrated, that American Express has a significant market share; the entry is difficult, and that supports a finding that American Express has market power.

Then, in both markets, American Express has insisting cardholders. Not every cardholder is going to

insist on using American Express but substantial percentages will, and, therefore, it's quite costly for a merchant faced with such cardholders to cease accepting American Express. Again, that doesn't mean every merchant will accept them; there are other considerations, clearly, but it does mean, particularly, for the large merchants, that it's a costly decision for them to drop.

And, then, finally, as we've just been talking about after lunch, American Express' prizing strategy itself provides evidence that their premium pricing supports a finding they have market power. The fact that they engage in extensive price discrimination is consistent with having market power, and you have to have some market power to do it. And then value recapture is an example of successful exercise of market power.

MR. CONRATH: Next slide, please.

Q So now that you've identified American Express as having market power, what's the next step under the approach that we're following here?

A So remember the steps, we're at define markets, assess whether American Express had market power within it, and then the third step is to identify whether anticompetitive effects are likely, given the findings in the earlier stage about the scope of the relevant market and America Express' market power within that market.

MR. CONRATH: Next slide, please.

Q What did you find when evaluating thi?

A My conclusion, as I said earlier, anti-steering rules harm competition; more specifically, within the market power approach, that American Express does possess substantial market power in both markets; that the anti-steering rules limit substitution directly. By limiting steering, they're taking away a mechanism by which the market would otherwise respond to higher prices to merchants, and thus by doing so, it weakens or harms competition on the merits. And for that reason, given their accommodation to market power and economic mechanism by which the anti-steering rules affect competition, we see that it harms competition.

In addition, the evidence is available, when we looked at actual adverse effects and applied that approach, of course, applies here as well and reenforces the findings both of market power and of significant harm to competition, so what I put here, again, as a reminder, as we saw what happened with Discover, where they were impeded from competing on the merits with a low price strategy to merchants, we saw that the preference campaigns that shifted share, competitive responses. And we also their value recapture in a somewhat different light, where what was notable was for managed merchants, the absence of concern about steering or suppression, and, therefore, that it was more profitable than

it otherwise would have been, and they faced less competitive pressure.
Q Are you saying that the anti-steering rules just affect America Express' behavior, or do they affect the behavior of the other networks as well?
A They affect the behavior of the other networks as well. We saw that with the Discover example, what happened with them and what continues to happen with Discover, as Mr. Hochschild testified. And, then, also we saw that with the preference campaigns, as the MasterCard witness identified, that MasterCard would be interested in having preference campaigns if they could, and while certain kinds of preferences can be done if they're limited by the rules. So it's affecting behavior of all of the networks. It's affecting competition industry wide.
Q Who is hurt by this loss of competition?
A So it's going to hurt merchants, and it also hurts merchants' customers, and we're talking about both customers who use credit and charge cards but also, in particular, customers who don't use credit and charge cards.
MR. CONRATH: Next slide, please.
Q Did you address possible procompetitive justifications for the anti-steering rules?
A Yes, I did.
Q And what were the main procompetitive justifications that

you evaluated?

MR. CONRATH: Can we have the next slide, please?

A Looking at the next slide, I tried to just group them into categories, and what I've shown here are three categories of preventing freeriding by merchants, preventing a downward spiral. Here the downward spiral is referring to American Express concerns or allegations that they would shrink in the absence of the rules in away that would harm competition. And then a third set put under the title of protecting American Express.

Q Let's take those one at a time. What do you mean by the term "freeriding"?

A So freeriding refers to a situation where somebody undertakes a costly action and then somebody else benefits from that action without having to pay for it.

Q What would be an example of freeriding?

A Think of one -- let's say one involving merchants and retailers. Suppose a manufacturer has a whole bunch of different retailers, and some of them have showrooms and some of them don't. Especially if you think about cities like New York or San Francisco, operating a showroom can be a pretty expensive proposition. So what happens is some of the retailers operate the showrooms, and people come in and see the manufacturer's goods, TVs or something. And, then, freeriding would occur if another retailer said, well, we'll

carry the product but we're not going to have a showroom. And what we'll tell people to do is jus come buy it from us. We'll give you a low price. Come buy if from us after you go see it somewhere else. So those retailers would be freeriding on the efforts of the other retails who are providing the showroom. So that would be an example.

Q Why do economist care about freeriding?

A The concern is -- these are costly activities. They take some sort of investment or ongoing expenditure. If everybody freerides, then nothing happens. So a manufacturer would worry about this as well, that if its retailers can all freeride, then nobody wants to provide the showroom, and so there's no showroom provided to customers. What we're worried about is that freeriding can lead to under-provision of the service or underinvestment.

MR. CONRATH: Next slide, please.

Q What types of alleged freeriding described by American Express did you examine?

A So it broke it down into three categories. So the first category benefits that are provided directly to the merchants.

Q What benefits does American Express provide directly to merchants?

A So, for example, because American Express operates a so-called closed-loop network, that they are an issuer and an acquirer and they have a lot of information, they have

information they think is valuable to the merchants, so they can tell the merchants things about their customers that could help the merchant target promotions or something like that.
Q Is that sometimes called merchant analytics?
A Yes. So that would be an example. Or they might have promotional campaigns that are specific to a particular merchant. So what's relevant about both of those is they're providing the merchant analytics directly to a particular merchant, or they're providing marketing directly to that merchant.
Q What did you conclude about whether freeriding is possible and benefits that Amex provides directly to merchants?
A Well, to the extent that there's freeriding there, in a sense, it's America Express' choice whether to allow it. If you take something like merchant analytics, American Express today charges for some of the merchant analytics. They don't charge for all of it, but they charge for some, and it's their decision whether or not to charge for it. It would be impossible for a merchant to freeride on merchant analytics if American Express didn't want them to, because American Express doesn't have to provide them the information. That's one of the reasons they're able to sell it to them. And, similarly, American Express can refuse to do a merchant-specific promotion. So the bottom line I reach on that is that

preventing this kind of freeriding cannot be a procompetitive justification of the rules. American Express has a direct way to address this issue.
Q Well, one other category of freeriding that you put on the slide is the benefits based on card use. What kind of benefits are based on card use? What do you mean by that?
A Well, for example, America Express' position that it's cardholders will -- I believe, will spend more at a merchant because they're using an American Express card, says, because of the Rewards Program, that the rewards give someone incentive to spend more, and that then would be a benefit for the merchant.
Q So how would the rewards benefit the merchant? By encouraging people to buy a little bit more based on the rewards? Is that the idea?
A Yes, that is what they would say.
Q Is it possible that a merchant could freeride on that benefit?
A Well, no, because we think about what it means; we're saying the customer's buying more because they're using their American Express card. But that means, then, that they're also triggering an obligation for the merchant to pay, because when you use your American Express, the merchant is then going to owe the discount rate times whatever you bought. So, again, that's not freeriding because it's not free; the

merchant is paying for this benefit in the form of the merchant discount.
Q The customer can't get the rewards unless they use their American Express card, right?
A That's correct.
Q Can you tell us about the third category here, credentialing effects?
A So the third category, which I've labeled here as credentialing effect, sometimes people refer to it as halo effect, although halo effect sometimes is used in other ways. But it's the idea that by accepting an American Express Card, not by actually having people use it, but by the fact that you accept the American Express Card that you as a merchant would benefit because you would be seen as having a better reputation, that either when people -- when people see the decal in the window, they say this merchant has higher quality customer service, or that this merchant, you know, is somehow a better restaurant. But the idea here is that the mere act of accepting American Express confers a benefit on the merchant.
Q So is Amex actually a significant source of credentialing for merchants? Were you able to examine that?
A Yes, I have. And what you can see on the next slide -- if I can say one thing before we turn to that slide, if it's all right, because there's another factor that's relevant to

the issue of freeriding. One will be whether there is, in fact, significant credentialing, but the other is whether American Express significantly invests in this. Because if you recall, the concern with freeriding is, well, if everybody's freeriding, it won't get done, because it's some costly activity, like the showroom. But my understanding of America Express' argument is not that they actively try to credential merchants; they don't screen merchants following some process to make sure they meet some high standard, which then is a signal to customers.

They're saying by the nature of American Express and its particular business model that the merchants they get are high quality merchants, and that then signals consumers. Now, why that matters is it's essentially saying that even taking their theory at face value, that that credentialing is not the result of a specific investment they're making. It's really an ancillary benefit are their business model, so even if people were freeriding on it, it wouldn't be changing American Express' incentive to provide whatever benefit that is; because they're saying the benefit comes out of things like their superior customer service, which they're offering for a different reason.

First off, there's not a potential problem with freeriding, because they're not making the prerequisite investment, which then could be under-provided because of

freeriding.

MR. CONRATH: Could we change the monitor, your Honor?

THE COURT: I just have a question on the credential effects. If -- wouldn't it more availing, as an argument, if American Express had exclusive relationships with certain retailers, let's say, like take Bergdorf Goodman, for instance, and the only card you could use would be the store card or the American Express Card; that that type of credentialing would have a greater benefit potentially, intellectually, or subliminally with the customer than if they take American Express, Visa, MasterCard and Discover and their own card?

THE WITNESS: Uh-huh.

THE COURT: Have you looked at that? Are there any -- is there a group of retailers or merchants who have that kind of relationship with American Express?

A So to my knowledge --

THE COURT: Other than Costco.

THE WITNESS: I was going to say, to my knowledge, they used to have the relationship with Bergdorf's, which in San Francisco is Neiman Marcus, which is why the only proprietary store card I carry is a Neiman Marcus Card. And I believe that that one with Bergdorf's and Neiman's has ended.

THE COURT: I didn't know that there ever was that

kind of relationship. No, I just -- I picked a store I've never been in, and I figured that might be the one.

THE WITNESS: If I were you, I would go buy a lottery ticket tonight since you've managed to guess where I live and pick one of the two merchant that I know of that have an exclusive relationship with American Express.

THE COURT: We'll be finishing early.

THE WITNESS: But, I mean, an interesting question that comes up with one, though, like the relationship with Bergdorf is also the question which way it goes and whether, in fact, American Express, then, would be certifying Bergdorf, or to a New York audience Bergdorf would be certifying American Express. And, in fact, I think the intellectual argument is that each one is helping the other, mutually reenforcing. And I think you see that also with -- you'll see like sporting events certain clusters of brands that will want to support it together; and they want to be associated with the event and the event wants to be associated with them, and I think that's one of the things that's going on here. But to my knowledge, those exclusive relationships are very limited.

THE COURT: I see. All right.

MR. CONRATH: If we can change the slide, I believe the next slide might actually be relevant to your Honor's question in a slightly different way. Confidential.

THE COURT: All right. We're set.

Q What does this next slide show, Professor Katz?
A Okay. So this slide is showing the results of the survey that was commissioned by American Express, one of several they've done; and in this case they were surveying card holders, both American Express cardholders, and also people who are not American Express cardholders --
MR. CONRATH: Can I interject for a moment. Your Honor, this is one of the surveys Professor Thorp testified about, to put it in context. Sorry for the interruption.
THE COURT: Continue.
THE WITNESS: This is a survey they conducted of cardholders that said both American Express cardholder and then also the cardholders of other networks; MasterCard, and Visa and Discover, and I think quite possibly Diner's Club, b but I can't remember. In any case, that would be trivial in this. And if we can have the first pop up call-out. So they ask a number of different questions, but one of them was whether or not the cardholder agreed that he or she feels more confident about purchasing from a merchant that displays -- and you'll see card in parenthesis -- that logo. So what they did is they asked American Express cardholders when you see an American card logo at the merchant, does that make you feel more confident about purchasing from the merchant?
What they also did is they asked the Visa cardholder

when you see Visa logo, do you feel more confident? Think of this as a question of, getting at this issue of credentialing, and what you'll see here is, if you compare the number in Column A with the number in Column C, this is where they looked at all the cardholders. And they compared the difference -- they wanted to look at what the difference is between the percentage of American Express cardholders that felt confident and the percentage of people using other cards that felt confident.

And you'll see, to the extent that this is, you know, a measure of credentialing, that, the other networks, they were a more effective form of credentialing than American Express, and that includes MasterCard and Visa, which have agreed not to have their version of the anti-steering rules. And then if you look to compare Column B with Column D, it's making that same sort of comparison, but what they're doing is they're asking it for people who are cardholders that are in loyalty programs. And, again, you see that the other networks have -- there's a higher percentage of their cardholders feeling confident than with American Express. And those footnotes are just indicating that when they did the survey, they found that to be statistically significant.

We have the second pop up. We'll see it's similar sorts of ideas that -- one of the questions is do you agree with the statement you're more likely to trust a website that

attracts your -- takes your particular card? It indicates it on the website. And then also whether your more likely to try a new merchant, which is when you might think credentially would be particularly important when it's a merchant that's new to you, when you know a particular card is accepted. And what you see is in each case, whether you look at overall cardholders or the loyalty cardholders, that these credentialing effects are stronger than for the other networks. What it's indicating is there is nothing uniquely valuable here about American Express in playing this role or that suggests they would be particularly be subject to freeriding.

MR. CONRATH: Could we have the next slide, please?

Q Are there other ways that consumers can find information about the quality or value of the merchants they want to patronize?

A Yes. And that they are ways that I believe are not confidential.

MR. CONRATH: Yes. We can go back to the public view, if your Honor likes.

Q So my question to you, Professor Katz, there are other ways consumers can find information about quality of merchants?

A Yes. And I put up here two of the most obvious examples, and I've done it for restaurants. One way to put it in

perspective is to ask yourself if you were picking a restaurant and trying to decide how good it was, is whether you would do it by going to the restaurant and looking in the window to see whether or not they accept American Express, or whether you would go online and use something like Yelp, or use Zagat or many other online resources to get that information. So there clearly are other sources of information about many, many types of merchants and many merchants, especially when you're talking about something like Yelp.

MR. CONRATH: Could we have the next slide, please.

Q The second category you have on your list is prevent a downward spiral. What do you understand American Express to mean by this argument?

A What they've done is express the concern in the absence of the rules that they would start losing merchant acceptance and also lose cardholders; and that because of the network effects that we talked about very early on today that as they had fewer merchants, they'd have fewer cardholders, and fewer card holds would lead to fewer merchants, and that would be the spiral effect. And because they would have fewer and fewer, that it would be downward. And it's their position that would weaken them to the point -- I believe they're saying it would weaken them to the point they would not be an effective competitor.

Q Is this sort of spiral likely if the anti-steering rules were removed?
A I don't believe it is likely for American Express. My analysis indicates it is not.
Q Do you agree there are networks effects in this industry?
A I certainly agree with that. It's one of the things that makes it difficult for a new network to come in, and I agree that American Express is subject to network effects. It's a question of both the degree and also what American Express would do in the absence of the rules and how they would respond, but I certainly agree that network effects are significant in this industry.
Q If network effects were as strong as American Express -- and you understand network effects to be the basis of their claim for the existence of a downward spiral. Is that what you mean?
A It is my understanding they're basing this on what economist would call network effects, yes.
Q If network effects were that strong, wouldn't we see American Express basically bending over backward to sign up every merchant they possibly could to avoid the negative network effects?
A That's your prerogative to say something more strongly than I would. But I would expect them, though, to be making efforts to sign up the merchants, and the fact that we see

them turning away merchants in order to maintain their premium price strategy, the tradeoff they're making, I think that's one factor -- that it's a factor that suggests that this concern with shrinking -- it is a concern for them. They do worry about their size -- that it can't be as strong as they make out, because also -- let's think about this in terms of Discover. Discover is a much smaller network in terms of what's going on in cardholder side.

If things were being driven by just network effects, they would say Discover must have a tiny merchant acceptance network, but as we know they have one that's larger than American Express because they've chosen to pursue this different strategy that American Express hasn't. And I believe American Express could have chosen to pursue a similar strategy, even within the context of their overall differential model had they chosen so to. So it's a decision they've made not to do that, and that certainly suggests, then, that they don't perceive these effects to be as large as you would need for the downward spiral to be a serous problem.

Q Going forward, if American Express really thought a downward spiral was likely, would American Express have options open to it?

A Yes, they would have options, and I would expect them to take advantage of those, both in terms of considering doing some things that could involve lower prices to merchants or

higher value. Or another way to respond to it, if they were concerned about steering, would be to offer improved value to their cardholders. Indeed Mr. Funda testified at trial that that's one of the ways American Express would consider responding if the anti-steering rules weren't here. He said we'd have to look at what to do for value for the merchants, and also look at the possibility of trying to make our products more value to the our customers because that way the customer would be more resistant to steering. So I would expect American Express to consider and ultimately to respond in all of those ways, in order to prevent the downward spiral from happening.

MR. CONRATH: Can we have the next slide, please.

Q What's the final category of a possible competitive justification that you looked at, Professor Katz?

A There are a couple different things I put together under the heading of protecting American Express.

MR. CONRATH: Can we look at the next slide?

Q What are the arguments that American Express makes in this regard?

A Well, one of the arguments that their experts made was a concern that absent these rules, American Express would be victim of exclusionary behavior, I think, particularly, by -- the concern was particularly exclusionary behavior by Visa, that it would figure out various ways to get merchants not to

accept American Express Card, certainly to do much less in America Express' favor and more in Visa's.

Q Is that a valid argument, according to the economic principles?

A No, I don't think it is a justification for this rule, and the reason for that is that preference campaigns can be procompetitive, and I believe the ones we saw in the past were procompetitive. That, of course, doesn't mean that there aren't ways that you could have something you might call a preference campaign but figure out some way to make it anticompetitive for it ultimately to be exclusionary. But I think what's wrong with these rules, trying to do that, is basically American Express, if you accept this argument, sort of preempting the antitrust process.

We know that preference campaigns can be procompetitive; we've seen examples of it. And essentially what American Express's rule is doing is saying we're going to have our own, per se, rule against preference campaigns. Whereas, the antitrust economics is a far better way to do it, is to allow campaigns, but to have those subject to antitrust oversight, so that if Visa were to turn out to have a preference campaign that actually harmed competition, that American Express would be free to initiate private litigation against them.

And also the U.S. Department of Justice would be in

a position to litigate, and that's what happened with U.S. V. Visa. A critical part of that case was that Visa and MasterCard were engaged in exclusionary behavior against American Express and Discover; and the Department of Justice brought suit against them, and I testified at that trial, but it was precisely to protect the competitive process.

And the danger with using the rules to do that is they're throwing out the good with the potential bad. These rules are sweeping. There's no assessment in these rules, well, is this procompetitive or anticompetitive preference campaign, it just says you can't have preference campaigns. And that's why I conclude from that, that these rules are -- that it's not a procompetitive benefit of these rules, it's a procompetitive benefit of having antitrust law, is what we should rely on.

THE COURT: There has been testimony that under the Amex nondiscrimination rules that short term preference campaigns are a possibility. Why wouldn't that be satisfactory to blunt the consequences of the rules?

THE WITNESS: So it partially does. It's certainly the case that having some preference campaigns and some exceptions. The affects of the rules are not as strong as they would be, but the rules still have effects. So I believe it's the MasterCard witness who testified, saying that they had to change the nature of their preference relationship with

Travelocity, and said, yes, it still had some beneficial effects but they were weaker, and so --

THE COURT: They went from being the preferred card to the official card.

THE WITNESS: That's right. And they said the effects of that -- they're weaker. Just as there are other exceptions, there's exceptions for co-brand cards. But in all these cases, it's still limiting the overall degree steering. In this case of co-brand card, it's special cases. In terms of these preference campaigns, holding them short term, people in the industry have said the short term ones are less effective. They can not very effective during that short term but then they drop off after that.

And so there are exceptions, and those exceptions then do allow some of the competitive steering, but at the same time they're also limiting it. And one way to say it is there's no such thing as saying, well, there's enough competition. Always have more competition, and more competition would be better.

MR. CONRATH: Could we -- what does the second role on this slide mean?

THE WITNESS: So the second bullet is speaking to, again, my understanding of what American Express is saying, which is through their experts and through their executives, saying if they didn't have the rules, they wouldn't be able to

maintain their differentiated strategy, which clearly is valuable, very valuable with some cardholders. And their experts have said, well, in the absence of these rules, what a merchant's going to do is just whatever is the cheapest network, they're going to push their customers into using that. And then a network such as ours, that comes in and offers a lot of value to cardholders is not going to be able to survive.

My conclusion is that that's not a valid argument, because it's ignoring merchants' incentive. An economically rational merchant, first off, is going to look at the quality of the network from the merchants' perspective, so if American Express or another network can differentiate itself by offering particular value to the merchant, the merchant will take that into account, and that's something that could offset a higher price.

But the other thing is the merchant takes its customers' preferences into account. If merchants didn't care about their customers' preferences and just took whatever's cheapest, we would see no merchants in America except in credit and charge cards. All the merchants would just take debit cards, for example, because they're cheaper. The reasons merchants take credit and charge cards, even though they're more expensive, is precisely because the merchants care about their customers' preferences.

So if American Express generates significant value for its cardholders and can generate -- and it doesn't cost them more money to generate the value than the value itself, then they would be able to survive, because the merchants will want to accept American Express cards because their customers will want to use them. And I think that's, in fact, why Mr. Funda was saying this thing that one response to getting rid of the rule could be to increase cardholder benefits, in order to make those cardholders more attractive or more insistent, really, so that then merchants will continue to take American Express.

So my bottom line conclusion on that is if American Express is truly creating value through its differentiated strategy, then it will be able to compete successfully in a world where steering is possible, because this is the world that most business firms live in. It's manufacturers selling to retailers. Retailers are steering their customers all the time. When you walk into a store, they make suggestions to you which brands to use. If you go into super market, there are end-of-aisle displays. They can have special prices discounting. Most manufacturers live in a world with steering, and we certainly see manufacturers that successfully have premium products, not just premium pricing, premium quality to go with it. So I think there's no basis for concluding that these rules are essential to protecting

American Express' differentiating model. The differentiating model can stand on its own.

Q Professor Katz, we've gone over several possible justifications for the merchant restraints, the anti-steering rules. Could you sum up your conclusions about whether there is a procompetitive justification that warrants the anti-steering rules?

A My conclusion is that there is not, is that the rules do harm competition and consumers, where again, consumers means both merchants and their customers, and there's not an offsetting procompetitive justification.

MR. CONRATH: All right. Thank you. I have no further questions, your Honor.

THE COURT: Very well. Cross-examination.

MR. CONRATH: Mr. Chesler points out something to me, that I may have misspoken, that -- of course, obviously, are -- the chart 100 is not one of the surveys that Professor Ford testified about, it's a consumer survey. Professor Ford testified about the merchant survey. It's a different survey from the same source, but it was not one of the ones he testified --

THE COURT: The two exhibits you identified.

MR. CONRATH: Yes may we admit them?

THE COURT: 2703, which is the professor's CV and 2702, which is the slide presentation.

MR. CONRATH: Yes, I offer those, your Honor.

THE COURT: Any objection?

MR. CHESLER: I assume the slide presentation is for demonstrative purposes, your Honor?

THE COURT: Yes.

MR. CHESLER: No objection.

THE COURT: All right. Yeah, PX2703 and PX2702 are received without objection, 2702 for demonstrative purposes.

(Government's Exhibit PX2702, PX2702 were received in evidence.)

MR. CHESLER: May, I your Honor?

THE COURT: Yes, you may.

MR. CHESLER: I have some books to hand out.

THE COURT: I can see.

MR. CHESLER: There are trees falling all over America.

May we approach the witness, your Honor?

THE COURT: Yes, you may. Could you just lower the microphone a bit. Thank you.

MR. CHESLER: Thank you, your Honor.

CROSS-EXAMINATION

BY MR. CHESLER:

Q Good afternoon, Professor.

A Good afternoon.

Q Nice to see you again.

A Likewise.
Q Professor, you use the phrase "two-sided platform" a number of times today, did you not?
A Yes, I did.
Q Do you agree that what we have here is a two-sided platform that links together two separate antitrust markets?
A I don't believe the platform is linking together markets. If you're asking do I believe that there's a two-sided platform that can be viewed as operating in two different antitrust markets, yes, I do.
Q What are the two different antitrust markets?
A So they're operating in the market for general purpose credit and charge card services to T and E merchants in the United States and also operating in the same market but to merchants overall.
Q Would you agree, though, that the interaction between payment services and consumers, on the one hand, and payment services and merchants, on the other hand, are part of a single two-sided market?
A They could be viewed that way, yes.
Q And you, in fact, you view it that way, don't you?
A I think that's one of the ways to view it, and I also believe they can be viewed as -- even think of them as one-sided markets that are back to back, but if you do that, it's important to take into account the links between the two.

Q But you, in fact, agree with America Express' experts that American Express operates in one or more two-sided markets, don't you?
A Yes, you can view it that way.
Q I understand you can view it that way, but I'm asking if you view it that way?
A As I've indicated, I believe it can be viewed two different ways. You can view them as being -- you can have one two-sided market, or you can talk about two one-sided markets as long as you keep track of those two markets and how they interact.
MR. CHESLER: Your Honor, I'm told we need to switch the feed to our side of the courtroom.
THE COURT: Well, that's fine. I just didn't think you'd put anything up yet.
MR. CHESLER: No, I haven't.
THE COURT: Thank you for your efficient staff.
MR. CHESLER: Was that a compliment, your Honor?
THE COURT: No further comment. You're all doing an excellent job.
Q Professor, we put two books up there. One is your deposition in this case, deposition in some other litigation and your reports. That's volume one. Volume two are individual documents that -- some of which I will ask you to look at during the course of the cross-examination. So I'd

like you to look in the first volume at your deposition in this case. And that's right up front in the book. And I'd like you to look at page 14, and I asked you, at line five, would you agree that American Express in conducting its business operating in one or more two-sided markets, and you said yes?

A Yes.

Q And I take it you agree with that?

A That's why I said just a few minutes ago that that's one way of viewing it, and I thought the other one was appropriate as well, but, yes, I agreed this is a way to do it both then and now.

Q And, in fact, you agree with Professor Burnheim, and Professor Gilbert and Professor Hay that not only does American Express operate in one or more two-sided markets, but that an assessment of market definition, market power and competitive effects should account for the two-sided nature of the market, correct?

A Yes.

Q I'd like you to look in the second volume at Defendants' Exhibit 1917. They should be in number order. I hope they are.

A Yes.

Q I hope my efficient staff has put them in number order. You recognize 1917 as a presentation that you made in April of

2004?
A I'm sorry. I apologize. Can you repeat the number again?
Q Yes, 1917. Defendants' Exhibit 1917.
A I misunderstood when you said they were in order. I thought they were in order you were going to use them, as opposed to numerical order. I apologize. Yes, I do recognize it.
Q So this is a presentation you made at an American Bar Association meeting in 2004, correct?
A Yes.
Q And it was entitled market definition, power and shares in the payments industry, correct?
A Yes.
Q I'd like you to look at page 2, which also has a Bates number at the bottom that ends 716. Do you have that?
A Yes.
Q And you see that there's a diagram there with the network in the middle, issuer and consumer on one side, and the acquirer and the merchant on the other side, and they're all connected with either solid or dotted lines?
A Yes.
Q And you indicate there in the third bullet under that diagram that network effects and two-sided market considerations are important, correct?

A Yes, I do.
Q And I think you summarized network effects several times during your testimony as something along the lines of the more people who hold a card, the more merchants will want to accept it. And the more merchants who accept the card, the more people will want to hold it, generally speaking; is that right?
A Yes. Those are examples of network effects, yes.
Q Now, if you look at the next page of this Exhibit 1917, page 3, the title is network and two-sided market effects are prevalent. And you say there that to succeed a payment system must successfully navigate issues of customer coordination and expectations. Issuers and merchants want to join networks that others have joined. And then below that you say attract both issuers and merchants through balanced pricing. And the last bullet on the page that I want to asking you about in that context is you say it can be efficient for one side of the market to subsidize the other, correct?
A Yes, that's correct.

(Proceedings continued on the following page.)

CROSS EXAMINATION (CONT'D.)

BY MR. CHESLER:

Q What did you mean in the context of the presentation you made on the payment industry about one side of the market subsidizing the other as a form of efficiency in the payments industry?

A Well, I recall at the time there was concern among some regulators and some governments that there was necessarily something wrong with the fact that people got rewards for credit cards, for example, and so I was pointing out here that the economics indicates that in some cases the efficient prices on one side of a two-sided platform or we'd like to say one side of a two-sided market could be negative. That's what I meant here when I was talking about one could subsidize the other.

Q When you say the price on one side could be negative, is it fair to say that an example of a negative price would be granting rewards to the consumer?

A Yes.

Q And so, the merchant is paying a positive price in the form of merchant fees on transactions and the consumer is paying a negative price in the form of receipt of rewards, correct?

A Yeah, that's certainly a possibility.

Q Would you turn to page nine of the presentation please.

It's the last page of the presentation.

In the summary you say: It is essential to consider both sides of the market at once in defining relevant markets.

And then the third bullet says: Market power depends on a variety of market characteristics on both sides of the market.

I take it you agree with both of those statements?

A Yes, I do.

Q And in this instance, in the examples we're talking about, the both sides of the market would be referring to the consumer side and the merchant side, correct?

A I'd have to go back and look at the thing, the particular context of this but it would either be the merchants and the customers or it is conceivable I was talking about acquirers and issuers but if you just talk about the two sides broadly, yes.

Q In the context of two-sided markets and, in particular, a two-sided market in the context of the payment industry, are you familiar with the concept of a two-sided price?

A Yes.

Q In fact, an example of a two-sided price is what we were just talking about, a positive price in which the merchant is paying fees on transactions executed at the merchant and a negative price in the form of rewards given to the consumers who are coming into the merchant's store and using their

cards, correct?
A Well, the two-sided price would be the sum of those two things but, yes, that's the overall concept.
Q I take it you would agree with me that the idea of a two-sided price was not invented by any of American Express's experts for purpose of this litigation, wouldn't you?
A I agree that they did not invent the concept, yes.
Q Now, is it possible to actually determine what the net two-sided price is in a two-sided market?
A It would depend on the circumstances and what data are available but as a general matter it certainly could be. There are also situations where the data aren't available.
Q Would you agree that the net two-sided price that American Express receives for a particular transaction, the price with respect to the merchant, the price with respect to the cardholder is relevant to assessing whether American Express has market power?
A I would like to ask for one clarification because when you're talking about American Express, it's not clear to me if you're talking about American Express as a company that's an issuer, acquirer and a network or if you're talking to me about American Express as a network.
Q American Express as a company that is an issuer, acquirer and a network?
A Okay.

Q The so-called closed loop. In that context, would you agree with me that the net two-sided price that American Express receives for a transaction is relevant to assessing whether it has market power?
A In its role as doing all of those together, yes.
Q Would you also agree that changes in one of those prices in a two-sided market can affect the price on the other side of market?
A Yes, I testified to that effect earlier today.
Q And in order to avoid reaching unwarranted conclusions about market power, you would need to assess the price changes on both sides of the market, correct?
A That's correct.
Q And, in fact, I think in your report in this case you give an example of how failing to consider the price on both sides of the market can lead to unwarranted conclusions. The example is a situation in which competition is driving the network to set prices that lose money serving one side of the market in order to attract consumers on the other side of the market and if you looked at the side on which they're losing money, you might draw an erroneous conclusion of unprofitability and if you looked at only the other side of the market, you might drew an erroneous conclusion of greater profitability than the company was actually enjoying; do you recall that?

A I don't recall the example but the principle sounds fine. I don't dispute that it's there.
Q Do you recall in 2010 writing an article in connection with a conference in Lisbon on competition, law and economics?
A I know what you're talking about. Just to be precise, I gave a speech which they then used the transcript and turned it into an article which would explain some of the many typos in it.
Q Okay. I appreciate the clarification. Would you look at Defendant's Exhibit 7747.
A 7747?
Q Yes, sir.
MR. CHESLER: Your Honor, before I move on, I'd like to offer 1917.
THE COURT: Any objection to 1917?
MR. CONRATH: No objection.
THE COURT: Defense Exhibit 1917 is received. And now we're discussing 7747.
MR. CHESLER: Yes, Your Honor.
(Defendant's Exhibit 1917 received in evidence.)
Q So, this is entitled: Two-Sided Markets - A Challenge for Competition, Policy and Regulation?
Correct?
A Yes. Well -- I'm sorry, I think actually that is not the title. Maybe you don't care, I believe the title is what's in

light gray and the dark gray is the title of the conference session.

Q Thank you. So, it is: Two-Sided Markets - A New Challenge for Competition, Policy and Regulation?

A Yeah, that's my recollection that that's the title.

Q Okay. Thank you.

In this article you give another example of why it is so important to look at pricing on both sides of a two-sided market to avoid coming to erroneous conclusions. Do you recall the example you gave of a singles bar?

A No. I certainly used the example of a singles bar in various writings. I don't recall using it -- whether I used it here or not.

Q Why don't you look at paragraph 22, it is on page four.

A I have it in front of me.

Q So, why don't you take a moment and just look at that, to yourself.

(Pause.)

A I have reviewed it.

Q Do you see that you use the singles bar example there?

A Yes, I do.

Q Would you just explain to the Court briefly how that example works to illustrate the importance of considering the price on both sides of the two-sided market to avoid reaching erroneous conclusions?

A So, what it's saying here is if you look, I'll take the case of a singles bar and what it's assuming here is what the singles bar is doing, it figures that men want to be with women more than women want to be with men and certainly if I'm the man, that's the correct statement. So, what it's saying here is you might see a singles bar that's charging high prices, what look like high prices to men and low prices to women and rather than look just at the one side and say, whoa, high prices to men, you must be making a lot of money, you have to say, well, why are the men there, they're there for the women and you were charging a low price for them, and so you need to take that into account and look at both sets of prices at once if we're trying to look just at price levels and determine are they high or low.

THE COURT: Yes, I have a vague recollection.

MR. CHESLER: Of being more interested in women than women were in you?

THE COURT: Of a singles bar, how it works. We don't really have to go into this very deeply. We can just --

MR. CHESLER: That's as far as we're going.

THE COURT: That's as far as we're going?

MR. CHESLER: Yes.

THE COURT: Let's move on.

MR. CHESLER: Thank you.

Q Would you look at paragraph 23 please, the next paragraph

in this paper. You say at the beginning of that paragraph: Subsidizing one side of the market to increase the value of the platform to the other side is an example of a strategy intended to create network effects that raise the value of the platform to users and thus raise the potential for the platform owner to earn profits.

Do you see that, sir?

A Yes.

Q And in the payments industry there are examples of that type of subsidization of one side of the market to increase value of the platform to the other side, aren't there?

A Yes, there are.

Q And, in fact, the merchants who pay fees to fund rewards to consumers is an example of such two-sided subsidization, isn't it?

A Yes.

Q And do you agree that the effect of that can be to increase the overall value of the platform?

A Yes. I want to just be clear on one thing which is why I hesitated to say yes. So, I don't want to change my answer but I want to be clear, to get into a technical definition of what it means to be a subsidy using an economics definition but as the word is understood in everyday language and the way I'm interpreting you to use it, yes, it is a subsidy.

Q Thank you. In the last sentence of that paragraph you

conclude: Thus, differential treatment of the two sides of the market is neither evidence of the exercise of market power nor sufficient grounds for concluding that regulation would improve market performance.

Do you agree with that statement?

A Yes, I do.

MR. CHESLER: Your Honor, I would offer 7747.

MR. CONRATH: No objection.

THE COURT: All right, DX 7747 is received in evidence.

(Defendant's Exhibit 7747 received in evidence.)

Q You mentioned early in your direct testimony, Professor, that you served as a witness for the government in the U.S. v. Visa case, correct?

A That is correct.

Q You also testified in another antitrust case called United States against First Data, do you recall that?

A Yes, I do.

Q And in that case you were not testifying on behalf of the government, you were testifying on behalf of debit networks that were trying to merge over the opposition of the government, correct?

A That's right, Professor Ordover and I had reverse roles.

Q And, in fact, speaking of roles, the lead trial counsel

in that case was our friend Mr. Conrath, right?
A I have to admit I didn't remember until he reminded me.
Q He has that effect on a lot of people.
THE COURT: He's made a better impression here.
MR. CONRATH: I should clarify, that case did not go to trial because the defendants agreed with us at the last hour.
MR. CHESLER: How nice of them.
A But in any case, he did remind me of that fact.
Q He reminded you of that fact before you came on the stand today?
A Yeah, talking a couple of days before.
Q So, in that case there were two PIN debit networks, First Data and Concord EFS that wanted to merge, correct?
A I believe that's correct.
Q And the government brought suit to prevent the merger, right?
A That's my recollection.
Q And the government alleged that the merger would result in a loss of competition for point of sale debit network services and would harm consumers through its effects on pricing practices of the merchants, do you recall that?
A No. First, I just don't recollect but also I'm puzzled because I thought the government alleged a narrower market than that but I may be misremembering.

Q Well, why don't we look at Defendant's Exhibit 7183.
I'm sorry, this is in volume one. We have your prior reports in various volumes. I apologize.
I'll say just for clarity, because we included your full reports from this case but only excerpts of reports from the other case because of the sheer volume of them.
Do you have 7183, sir?
A Yes, I do.
Q Okay.
THE COURT: And it has redactions.
MR. CHESLER: Yes, it does.
Q So, would you look at paragraph ten please which is on page three and, by the way, you recognize this as excerpts of your report in that First Data litigation?
A A very cloudy version of that report, yes, but that report.
Q Okay. So, if you look at paragraph ten on page three, you see it says:
Plaintiffs assert that the merger of Concord and First Data would result in a loss of competition in the provision of point of sale debit network services that would harm consumers through its effects on the pricing practices of merchants?
Do you see that, sir?
A Yes, I do.

Q Does that refresh your recollection of what the allegation by the government was?
A No, what it reminds -- what it's telling me, I'm not sure what the term point of sale debit network means as it was used then because I thought they were making a distinction between PIN and signature and as I sit here, I just don't remember but I'm assuming it is right that whatever they had said was what I was using here but I don't recall this particular terminology.
Q Do you recall that the government argued that the merger would make pricing for PIN debit network services to merchants less competitive and that merchants would pass on at least some of those higher costs to consumers?
A My recollection is that it was that the government alleged that interchange rates would change and that -- well, that's -- if it's that, now that would result in higher prices to merchants. I don't remember the rest.
Q All right. Why don't you look at paragraph five of your report which starts on page three.
A I'm sorry.
Q No, I'm sorry, I referred you to the wrong document. I want you to look at Defendant's Exhibit 7756 which is in the other volume. This is in the complaint in that case.
I apologize for jumping back and forth but we had to find some way of organizing this?

A 7756?
Q Yes, sir.
A And paragraph five in that document?
Q Paragraph five, you see that this is the complaint of the U.S. Government and various states versus First Data and Concord EFS, the case we're talking about?
A Yes, I do.
Q Okay. You look at paragraph five of the government's complaint, see it says:

First Data's acquisition of Concord would substantially reduce competition among the PIN debit networks for retail transactions.

Then it picks up on the next page:

The merger would make pricing for PIN debit network services to merchants less competitive. Merchants will pass on at least some of the higher costs of PIN debit transactions by raising the prices of their goods and services to the detriment of tens of millions of consumers throughout the United States.

Does that refresh your recollection, sir, that that was the allegation of the government in that case?
A Yes, and it also refreshes my recollection when I was saying to you before about the terminology because it is saying here PIN debit and they're distinguishing between what would typically be referred to as PIN debit and signature

debit and that was the source of my earlier confusion.
Q Thank you.
Now, you conducted an economic analysis in that case of the claims made by the government, did you not?
A Yes, I did.
Q And one of the things that you concluded in that case was that the market involving PIN debit network services was a two-sided market, didn't you?
A I don't recall concluding that there was a market for PIN debit but I'd have to look at my report to refresh my memory.
Q Okay. Why don't you go back to your report which is 7183 in the first volume and if you look at paragraph 27 of your report which starts on page 11, carries over to page 12, take a moment and reviewed that paragraph to yourself.
(Pause.)
A I'm sorry, I got distracted. You're saying paragraph 27?
Q Yes, sir, it begins at the very bottom of page 11 and carries over on to page 12.
(Pause.)
Q Toward the end of that paragraph you say:
Thus, a profit maximizing debit network will seek an interchange fee level that balances the interests of merchants and issuers simultaneously. Because the network must consider

the responses of both issuers and merchants simultaneously, that is it must consider two sides of the market at once, a debit network is said to operate in a two-sided market.

Do you see that?

A I do see that.

Q And you recall that that was, in fact, your view as expressed in the First Data case?

A Let me be clear about what question you're saying, asking. If you're asking do I agree with that sentence, the answer is yes, it was a two-sided market. If you're asking for the answer to your earlier question, did I say that PIN debit was a relevant market, was a two-sided market for PIN debit, I noticed while opening this report that that's not what I concluded.

Q It's not what you concluded. Okay.

Let me ask you to look at Defendant's Exhibit 7183. That's the report, correct?

A Yes, that's what I have in front of me.

Q Yes. If you look at page four.

A Yes.

Q If you look at the last bullet on page four, this is under the heading Overview of Opinion, correct?

A Yes.

Q You say in that bullet:

The complaint misses half of the competitive story

by focusing on only one side of what is a two-sided market. Debit networks serve as middlemen to bring together two sides of a market, merchant acquirers and issuers. To compete successfully, a debit network must balance demands on each side of the market. By failing to recognize this fundamental phenomenon, the complaint draws faulty conclusions about market definition, the nature of competition and the likely effects of the merger.

Do you agree with that statement?

A Yes, I do.

Q And you agree that the government missed half of the competitive story by focusing on only one side of what is a two-sided market?

A Yes, I do.

Q Did you also conclude in First Data that even if one knew that a proposed merger would increase some measure of network market power, it does not follow either that interchange fees would rise or that even if they did rise, merchant or consumer welfare levels would fall?

A I don't recall saying what you're saying and I am wondering is this a quotation or your substituting the term some measure for market power for something I said and since in the past there's been some misunderstanding about that, if you could be clear about what you're asking it would be helpful to me. I know you intended to be clear, I didn't mean

that as an insult but if you'd just repeat the question.

Q Why don't we, so there isn't any failure of communication, why don't you look at paragraph 157 of your report which is the 7183, that is page 70. It should be the excerpt in your book.

A I'm sorry, would you repeat the paragraph number?

Q 157, it is at the top of page 70 and you'll see, I think I was reading it accurately, you say:

In summary, as a matter of economic theory, even if one knew that a proposed merger would increase some measure of network market power, it does not follow either that interchange fees would rise or that even if interchange fees did rise, merchant or consumer welfare levels would fall as a result.

It goes on to say: It is critical not to draw unwarranted and misleading conclusions by focusing solely on one side of a two-sided market.

I take it you agree that you made that statement in that case, sir?

A I agree I made it and I agree with the statement.

Q Thank you.

Now, I believe that one of the markets that you say you defined for purposes of this case is the market for network services provided to merchants, correct?

A That's correct.

Q And then there's a separate market for such services provided to travel and entertainment merchants, correct?
A That's correct.
Q Now, have you been following the trial record of this trial as it's developed over the last several weeks?
A I followed parts of it but certainly not all of it. As you might imagine, I've been busy getting ready with my slides.
Q Do you recall that virtually all if not all of the merchant witnesses who were called by the government testified not about network fee increases but about total merchant fee increases or interchange increases?
A I have not personally reviewed all of the testimony. I wouldn't be surprised if that were the case since they tend to think of what the bottom line of what they pay I suspect rather than the components.
Q And, in fact, I think one of the charts you used on your direct showed, you used hypothetical numbers just to demonstrate how it works, the overwhelming preponderance of the merchant fee is the interchange which goes to the issuing bank, correct?
A That's the biggest portion, yes.
Q In fact, the network fee is a very small, even in your example, a very small proportion, five percent, something like that?

A Larger than five percent but it is certainly significantly smaller than the interchange fee.

Q And given that your market definition is network services to merchants, is that the only fee that your analysis is concerned with, sir, just the network portion of the fee which is this whatever percentage, small percentage of the total fee?

A My analysis took into account the other portions of the fee at various points. As you know, I talked about some of the things, about the total merchant discount fee and there are pieces of evidence having to do with the interchange fee but ultimately in thinking about the network, what the network keeps is the network fee and, for example, that's why when I looked at the five percent increase, I was looking at the two-sided price of the network.

Q So, let me ask the question a slightly different way. Is the price that you believe is too high by virtue of American Express's non-discrimination provisions the network fee portion of what the merchant pays?

A I believe that it is a result -- my analysis, my conclusion is the result of the anti-steering rules is to reduce the sensitivity of demand on the merchant side of the platform and, as a result of that, the merchants pay higher prices and that less than the full amount is passed on to cardholders and that some of that is captured by the networks

and when I did my test of the hypothetical monopolist, it was looking in the case where it would all be captured by the networks but I also believe some of it would be passed on to the issuers themselves.

Q I'm not sure I understood the answer. Are you concerned about the interchange fee that's set by the networks, Visa and MasterCard, being higher than you believe it would be if there were no non-discrimination provisions in American Express's merchant agreements or just the network portion of the fee?

A I believe that both elements of that are affected which is why in my analysis I talked about the network fee going up but then also why I talked about that it is not those increases in what the merchant pays are not fully passed on to cardholders. Any passing on to cardholders that does occur would occur through the interchange. So, my analysis indicates that both things would be affected because the rules of diminishing competition in making demand on the merchant side less responsive, that's going to affect what the merchants pay overall including the different components of what they pay.

Q In fact, you know that significant amounts of interchange are in fact passed on to consumers in the market today in the form of rewards and other consumer benefits, don't you?

A Yes, to some consumers certainly.

MR. CHESLER: A different subject, Your Honor.

Q I want to talk to you about the aspect of your -- some aspects of your market definition, in particular your discussion about debit and some of the things you said about the Hypothetical Monopolist or SSNIP test.

Would you agree, Professor, that in defining a relevant market for antitrust purposes, one looks to determine what are reasonably close substitutes for one another?

A Yes.

Q Would you also agree that in this particular two-sided market the demand by the merchants depends upon the demands of the consumers on the other side of the market?

A Yes, that's my testimony.

Q So, your focus about substitution for purposes of defining what is in the market needs to be on both sides, the consumer side and the merchant side, correct?

A That's correct.

Q And so, therefore, you would want to understand how consumers substitute among various payment instruments, wouldn't you?

A Yes.

Q And I take it you'd go so far as to say that merchants' demand for credit and charge card network services is largely driven by consumer demand, isn't it?

A Yes.

Q Now, aren't there a number of ways to go about looking at

the substitutability of different products for the purposes of coming up with a market definition?

A There is more than one way, yes.

Q So, the Hypothetical Monopolist or SSNIP test is one way but it is certainly not the only way to define a market, correct?

A That's correct.

Q Another way to assess the substitutability of products for purposes of defining a market is to look at whether they are reasonably interchangeable for use, isn't that so?

A Yes, that is an approach that can be taken.

Q And, in fact, that's what you did in the First Data case instead of doing a SSNIP test, isn't it?

A I'd have to go back and look but I could well have.

Q Do you recall that, in fact, in the First Data case the government criticized your market definition because you did not do a Hypothetical Monopolist Test?

A No, I don't recall that.

Q Okay. Let me ask you to look in volume one at your First Data case deposition which is Defendant's Exhibit 1690.

Do you have that, sir?

A Yes, I do.

Q I'd like you to turn to page 99 please.

It should be toward the beginning of the excerpt. Do you have that?

A I found that out, I went in 99 pages.
Q I'm sorry about that. We tried to eliminate pages I wasn't going to ask you about.

You see on page 99 of your deposition in First Data you are asked at line 12: "What are the well known flaws in the Hypothetical Monopolist Test to which your report alludes?"

Now, do you recall that you discussed in your report that the Hypothetical Monopolist Test had well known flaws?
A I don't recall saying that in my report but I do recall having that opinion.
Q Okay. Why don't you take a minute and look at your answer.

You said: "One of the flaws is that it can give you overly narrow markets and some problems with this use of this notion of putting in the next best substitute for the -- well, I think that's the terminology used in constructing a market in order to come up with this so-called smallest set of products because I think there is agreement that you can sometimes do these things in the wrong -- well, the wrong order in terms of getting the economically sensible answer. It is the right order according to the algorithm and the merger guidelines, so I mean that's one of the problems" and you go on.

Do you agree one of the flaws in the Hypothetical Monopolist Test is that it can lead to an overly narrow market definition?

A Yes, I believe that can be a problem if you bring products into the candidate market in the wrong order.

MR. CONRATH: Your Honor, could we read the whole answer.

MR. CHESLER: I was about to take him through the rest of the answer, yes.

MR. CONRATH: Very well.

Q I want you to look at the rest and I'm happy to read it into the record so we're not just referring to it without reading it.

You say: "I guess related to that is that you can have situations and when you have differentiated products I think there is a real question that in a lot of economist's minds whether the market definition exercise of the hypothetical monopolist is worth doing or whether it makes very much sense because it is trying to draw sharp boundaries where there aren't any. There is also -- I mean we've got to be careful about the language. There is some things, it's not the Hypothetical Monopolist Test itself that's the problem, it's when one tries to mechanically apply it without regard for the market realities and try to use it for more than getting insight into what's going on. So, that may be more a

flaw in the application than the approach itself. You know, as you know, I've certainly taken the position and continue to that it can be useful for thinking about things but one has to be careful how one does it."

I'd like you to focus on the second paragraph of your answer, the one that begins on line six of page 100 that I just read.

So, do you agree, sir, as you testified in First Data, that when you have differentiated products, there's a real question in a lot of economist's minds whether the market definition exercise of the hypothetical monopolist is worth doing?

A Yes, I think there is a question and actually the present case is one that can illustrate some of the problems because as American Express has emphasized that they pursue a differentiated model so certainly they perceive that they are a differentiated network. What that means is the market share you see may not accurately represent the degree of competition because you have a market where the firms in it are highly differentiated, there may be less competition than is apparent from looking at the market shares. So, that's why there are two concerns with differentiated products, one is you're overstating the degree of competition because you say, well, we've put them in the same market but really there's some important differences among the products within the market and

we're missing that when we just define relevant markets and just look at shares and we ignore the fact that the different producers are differentiated.

The other problem that can come up, that's why I was asking this about economists asking is it worth doing is if you have enough differentiation among all the products, it becomes very hard to decide where to draw the line and that when you do do that, you may be missing the story because of these important differences within the market.

Q Do you recall that in the First Data case you were asked why it was that you had opted to not use a Hypothetical Monopolist Test when you had in fact used one in the Visa case a few years before?

A I don't recall that.

Q You don't recall. Okay.

Would you look at the same deposition, page 125 please, First Data case?

I'm sorry, 124, I apologize, down at the bottom, line 19 you were asked:

"Is it your view, Dr. Katz, that it is never appropriate in the context of a two-sided market to apply a Hypothetical Monopolist Test?

"Answer: No, it is not my view that it is never appropriate. My view is that you've got to be careful how you do it and that it can be misused and misapplied."

And then you were asked: "Are you aware of any other two-sided market where applying the Hypothetical Monopolist Test would be analytically unsound?"

You say: "I haven't attempted to apply it to other markets so I couldn't answer by other markets, I mean beyond payment mechanisms and certainly I -- when you're asking me where it is unsound, I think there is some question about exactly how to do it in the credit card networks services market which I'm distinguishing because in my report from which you're quoting I distinguish two markets, I talked about the market where consumers were purchasing credit card services and I also talked about the market for credit and charge card network services and in the latter case I did try to do a calculation of one of the many things that are done. That calculation I think has some shortcomings but obviously I put it in my report because I also thought it was one -- it was of some information value as well."

Does that help to refresh your recollection that you were being asked in the First Data case why it was you had not adopted a Hypothetical Monopolist Test to define the market when you had used it in First Data -- in U.S. v. Visa and you were being asked about your use of the test in the U.S. v. Visa case?

A I mean partially. Is the question in what context is this being done, because as I recall, a central issue is that

the government was trying to do all of this in terms of the interchange fee which I don't believe is an appropriate way to do a Hypothetical Monopolist Test or to define relevant markets in general and what I'm not sure about is how much of this is a shorthand about talking about that or whether it is asking broader but certainly I'm answering questions about difficulties of applying a two-sided hypothetical monopoly test.

Q When you say that the government was trying to focus on the interchange which you did not think was an appropriate way, you're talking about what the government was doing in the First Data case, correct?

A Yes.

Q Now, in this case coming back to the --

A Present.

Q -- present case and the testimony you gave this morning about the Hypothetical Monopolist Test, you recall your discussion this morning about the ability of the hypothetical monopolist to raise its prices without inducing a sufficiently large number of merchants to drop credit and charge card acceptance?

A Yes.

Q Would you agree with me, Professor, that if you were looking at functional interchangeability, an alternative way of defining market as we discussed a few minutes ago, you

could find that two products are in the same relevant market without concluding that consumers would entirely replace one by the other?

MR. CONRATH: Objection.

I think the reference functional interchangeability misstates the prior discussion.

THE COURT: Well, the witness can explain.

MR. CHESLER: Thank you, Your Honor.

Q Do you need the question read again?

A Well, we may need to have it read again. Let me just raise a question before that. When you say consumers, about whom are you speaking?

Q In my question?

A Yes.

Q Well, I was not asking about interchangeability yet in this particular market so I was asking generally, so my question was intended to be generic.

A Okay. You could reask the question. I think I misunderstood that.

Q I'm sorry for the confusion.

If you were looking at functional interchangeability as a basis for defining a market to determine whether two products are in the same market as opposed to doing a SSNIP analysis, do you agree with me that you could find that two products are in fact in the same market on the basis of

functional interchangeability even though consumers do not necessarily completely replace the use of one product with the other?

A Under what circumstances are they replacing one with the other?

Q They're making a choice between two products and sometimes they choose one and sometimes they choose the other but they don't always choose one in favor of the other?

A I'm sorry, since you're not telling me why they're switching, it is possible you could do that but it may be from what you've defined it's also not true, I'm just having trouble understanding the hypothetical, from my perspective it is missing something.

Q I'm sorry, let me try again.

Let's take charge cards and credit cards. For purposes of this case, your general purpose market for merchant network services includes charge cards and credit cards but not debit cards?

A That's correct.

Q Would you agree with me that consumers, that is people like us who use plastic to make transactions do not necessarily always use a credit card in place of a charge card, sometimes they use credit, sometimes they use charge?

A Yes, I agree with that.

Q And you believe that credit and charge coexist in the

same market, don't you?

A Yes.

Q Because for a fair degree of applications or uses they are interchangeable with one another, substitutable, aren't they?

A No, the basis of my opinion is what this means to merchants is why I asked you the earlier question when I was asking you what you meant by consumers because a central part of my economic analysis is that merchant demand is derive demand from consumer demands in the everyday sense of the word consumer but we have to take into account what that means for merchants and, as I've testified, from the perspective of a merchant thinking to drop -- whether or not to drop credit and charge cards and to stop accepting them, it is not just about a bunch of consumers who are willing to switch, it is worried about the core.

So, when we're talking about functional interchangeability and what it means for markets, we should be talking about functional interchangeability from the point of view of the merchant and whether or not there are close enough substitutes for the merchant.

Now, to answer that question, and you could also ask about functional interchangeability from the perspective of households and consumers but you can't do that in isolation without thinking about what the implications are for the

merchants.
Q Okay. Let's take it one at a time. Let's start with where you started which is on the merchant side, would you agree with me that with respect to the merchant side of this two-sided market, charge cards and credit cards are both in the same market?
A Yes.
Q And would you agree with me that merchants accept both, they don't accept one to the exclusion of the other, it is not an all or nothing substitution?
A I've got to make sure I understand -- you're saying that, you're asking about different brands of credit and charge cards. I'm not sure when you say it's both, it's not all or nothing, if you'd just clarify that.
Q Well, take, for example, American Express has charge cards, correct?
A Yes.
Q Visa has credit cards, correct?
A Yes.
Q Merchants accept both the American Express charge cards and the Visa credit cards in the relevant market that you've defined, correct?
A Yes.
Q It is not necessary that merchants take only one, say the Visa credit cards to the exclusion of the American Express

charge cards in order for you to conclude that they're both in the market, correct?
A That's certainly correct.
Q Okay. Now, let's take the consumer side, would you agree with me that consumers, that if you look at the market from the consumer's perspective which you've said before is related to and drives merchant demand, that consumers view credit and charge cards as reasonable substitutes for one another?
A Yes, for many consumers they do, yes.
Q And it is not necessary that a consumer decide I'm only going to use a charge card in favor of credit or vice versa, sometimes she may use one, sometimes she may choose to use the other, correct?
A Yes.
Q Now, I want to ask you to consider this, the four networks that you've put in both of your markets, Visa. MasterCard, American Express and Discover; those are the four networks, correct?
A Yes.
Q Now, are you aware that a number of merchants have testified that they would simply not under any circumstances stop accepting Visa cards or MasterCards or American Express cards?
A I don't know -- I don't recall whether they actually said they wouldn't under any circumstances but certainly I know

that merchants -- I've seen merchant testimony saying they wouldn't stop accepting in the face of a substantial price increase but I don't recall hearing that they wouldn't under any circumstances.

Q All right. Let's stay with your recollection. You recall that merchants testified that they would not stop taking a particular network brand of card in the face of a substantial price increase, correct?

A As I sit here, I actually don't recall testimony about Visa but it certainly would be consistent with things I've heard over the years being involved in the industry.

Q Okay. Now, if you did a SSNIP test to define your network market, your network services market, one way you can do that would be to take -- if you were starting out on a blank board and you were trying to figure out which networks should be in the market, would you agree with me that one way to go about doing that using a SSNIP test would be to pick one of the networks, say Visa, assume a SSNIP by Visa and determine whether the SSNIP was profitable or not and if it was not profitable, you would look to expand your market definition to include one or more other networks, correct?

A Well, my understanding of how the Hypothetical Monopolist Test is done is by defining products, not by defining specific firms and that the way it proceeds, you take a candidate set

of products, you can ask what a hypothetical monopolist would do over that set of products and then you say, well, let's look at the providers of those products and they're in the relevant market.

So, when I was talking about the Hypothetical Monopolist Test applied to credit and charge card network monopolists, I was taking credit and charge cards as the starting point for the candidate market and then you'd say, well, who supplies credit and charge cards, we're talking about the big four networks, but it is done in terms of the product and then asking about expanding the set.

If you do it the way you're talking about, that would be an example of one of my points where I was saying that the way you put products into the candidate market if done wrong can give you overly narrow markets. There are people who would say that Visa is its own candidate market. I think it is a more appropriate approach to take a broader market and take into account a wider spectrum of competition.

Q All right.

Let's try it this way then. You understand that the only one of the four networks that offers a charge card, meaning a non-revolving card is American Express?

A I actually thought that some of the fleet cards or some of the other things offered by Visa and MasterCard might in fact be charge cards but to the extent if we want to agree

that it is a very small portion of their business if they do it.

Q All right. I want you to assume that you were trying to define not whether debit is in or out of your market, which is the exercise you were talking about this morning, but you were trying to define what credit and charge cards were in your network services market and you started with the American Express charge cards and you assumed a SSNIP on the American Express charge cards.

Now, in light of the testimony of various merchants that even in the face of a very significant price increase they would not drop the American Express Card, using that example, wouldn't you agree with me that applying the SSNIP test there would cause you not to include, for example, the credit card products that Visa, MasterCard and Discover offer in your relevant market?

A So, there are economists that apply the Hypothetical Monopolist Test or this type of thinking and do conclude that American Express constitutes a separate relevant market and has market power. In fact, I believe that that's the position of at least one of the expert economists in the associated case with the private plaintiffs and, as you have pointed out, there is a coherent logic to that.

However, as I've said, you've got to be aware of applying the Hypothetical Monopolist Test in a mechanical way

and my view that defining the relevant market to be American Express and then saying that American Express has one hundred percent market share and is a monopoly would be taking, you know, in some sense an unwarranted shortcut and so I chose to take the broader market definition so that I wouldn't be just assuming what the answer was and that's exactly what I was talking about in the prior testimony of mine that you cited how you can by misapplying it get what I consider to be overly narrow network -- sorry, overly narrow markets.

Q So, in fact, you did not apply the Hypothetical Monopolist Test in determining that the four networks were in your network services market, did you?

A Well, as I said before, my understanding, and I believe it's in line with what the merger guidelines say, is the Hypothetical Monopolist Test is a test for products, not a test for firms, so that one asks the question are credit and charge card network services in the same market, when then if you conclude yes or while you're testing it you then identify who it is who provides credit and charge card network services and that's how I applied the test to do the products.

I did not consider there to be so much differentiation that each of the networks would be considered as a separate stand-alone product.

THE COURT: Mr. Chesler, are you moving on to something else?

MR. CHESLER: A subtopic within a broader topic, yes, Your Honor.

THE COURT: I thought we'd take a ten minute break and we can continue until six.

MR. CHESLER: Fine, Your Honor.

THE COURT: All right. Thank you.

(Time noted: 4:34 p.m.)

(Witness steps down.

(Recess taken.)

(Continued on next page.)

(In open court.)

THE COURT: Please be seated.

Okay. Continue.

I remind the witness he's still under oath.

THE WITNESS: I understand, Your Honor.

CROSS-EXAMINATION (continued)

BY MR. CHESLER:

Q Professor, how did you decide that the credit and charge cards were in the same market?

A Applying the Hypothetical Monopolist Test.

Q You applied the Hypothetical Monopolist Test in putting credit and charge together in the market?

A I started with them together, that's right, and then asked the question about increasing the prices. I did not consider chargecards separately as their own relevant market.

Q That's my question, sir. I'm not asking about the SSNIP test you described this morning where you had credit and charge together and you were considering whether debit was in or not. I'm asking you how you decided to put credit and charge together in the market in the first place.

A Because the industry people have always considered them together to be very similar products, the fact that they both are a form of deferred payment, that was the starting point of my analysis.

Q What was the ending point of your analysis?

A When I applied the Hypothetical Monopolist Test to that cluster of products, it indicated that they're a relevant product market and I stopped there.

Q So your initial decision to put them together was based upon what exactly, industry?

A Consideration of the industry. Again, I guess I could have tried looking and ask are chargecards a separate relevant market. Even if I concluded that they were, I would not have stopped there because I don't think that would be a useful market definition to say chargecards are a separate relevant market and let's just, you know, let's assign American Express a hundred percent market share. So I considered the broader market.

Q So just so we're clear, when you initially put them together in your working assumption was that credit cards and chargecards were in the same market, you didn't at that stage do any of the things you talked about this morning in terms of the Hypothetical Monopolist Test to determine what a relevant market is, did you?

A I'm not sure when you say any of the things I did this morning. It certainly is the case that I did not consider whether to say that American Express constituted its own relevant market as the sole major provider of chargecards. I determined to consider a broader market than that. As I mentioned before in the -- related to the private plaintiff's

case, it's conceivable that had I applied the test just to American Express and to its chargecards, I would have -- it would have indicated that American Express had a near hundred percent market share of that market. I found it more useful to avoid the pitfalls of the Hypothetical Monopolist Test that I mentioned that I considered a broader market and the fact that American Express does face competition from other credit card providers.

Q How did you know at that stage that American Express faced competition from credit card providers?

A Because their documents indicate that. As we've talked about in the -- in this morning's testimony, looked at documents where American Express talked about their pricing relative to other credit cards and certainly in deposition testimony and I believe also in trial testimony, American Express executives have identified credit card networks as their competitors. Had they not identified them as competitors, had the evidence indicated the chargecards had no competitors, it would have only reinforced the conclusion that American Express has market power. So by including credit cards in the market along with chargecards, it's leading to a broader market, which in a sense is tilting things towards finding that American Express doesn't have market power. So it's a conservative approach.

Q So you, among other things, relied upon the statements of

American Express employees and their documents recognizing competition between credit and chargecards, correct?
A That was part of what I did, yes.
Q Now, beyond the SSNIP test that you described this morning, you also looked at consumer behavior in the payment industry in connection with your market definition activities here; is that right?
A That's correct.
Q Now, would you agree with me, sir, that with respect to the report that you filed in this case on consumer behavior you literally just lifted verbatim the words from your Visa report from twelve years ago or some such time?
A If you're asking the question did I literally lift a small fraction of the words from the report, yes, that was an intentional decision.
Q And the report that you filed in Visa from which you lifted that language was filed in June of 2000, correct, about 14 years ago?
A I don't remember the date as we sit here, but I'll -- I take your word for it if you say it's 14 years ago.
Q Thank you.
I'd like you to -- well, before I show you the document, I take it you would agree that the volume of purchases on debit cards has increased pretty dramatically in the last ten years?

A Yes.

Q Are you familiar with the survey done by the Boston Federal Reserve on consumer payment choice?

A Yes. They may do more than one survey, but certainly I'm aware of those surveys.

Q Let me ask you to look at Defendant's Exhibit 7760, which is in the second volume. This is a demonstrative exhibit actually from Dr. Bernheim's report.

Were you familiar with the ratings that consumers provided to the Boston Fed with respect to security acceptance and convenience of general purpose credit and chargecards and debit cards?

A You're asking am I familiar? Yes.

Q Yes. You are familiar with the ratings that are depicted graphically here from the Boston Fed survey in 2009?

A Yes. I couldn't tell you the numbers from memory or anything like that, but I'm certainly aware that the survey asks that sort of question.

Q Do these data look consistent with your recollection of how consumers responded with respect to those issues?

A As I sit here they do. I'd have to look at my reports and Dr. Bernheim's, but they appear to be consistent.

Q Are you familiar with an economist at Dartmouth by the name of Jonathan Zinman?

A I know the name because he's published in the literature.

I'm not familiar with him.
Q Do you recall an article by Professor Zinman called "Debit or Credit" from the Journal of Banking and Finance several years ago?
A I know I've looked at articles by him, but I don't recall that particular title. So I couldn't tell you about that particular article from memory.
Q All right. Let me ask you to look at Defendant's Exhibit 4399, please, also in the second volume.
Do you have that, sir?
A Yes, I do.
Q Are you familiar with this article?
A I'd have to look through it to see. I mean, looking just at the front page, it doesn't jump to mind. Again, I remember at one point having reviewed one or more articles by him, but as I sit here, I don't recall the particulars of this article.
Q I'd like you to turn to page 365, the numbers are up in the top right-hand corner of the page, the section entitled "Conclusion."
Do you have that, sir?
A Yes.
Q And Professor Zinman writes: "I find that debit card use responds strongly to the price of making payments by a close substitute, a credit card." And he goes on about using data from the most complete nationally representative survey with

data on both debit and credit use. "I find that debit use is significantly higher among consumers facing a relatively high cost on marginal credit card charges, those who revolve debt, those who face a binding credit limit constraint and those who lack a credit card."

Is that consistent with your view, or do you disagree with Professor Zinman's conclusion?

A No, that of course is consistent with my view.

Q Now, do you agree that the distinction, if I asked you this before I apologize, but I don't think I did, the principal distinction between a charge card and a credit card is that on a credit card you can revolve a balance and pay interest, whereas on a charge card you pay the balance off each month?

A That's my understanding in terms of the formal def -- I mean, that is the formal definition of which I'm aware. It's also my understanding that American Express chargecards often have some degree of credit facility associated with them beyond the 30-day float.

Q And would you agree that debit cards are closer substitutes for charge cards than they are for credit cards?

A Yes.

Q Are you aware that for the last four years, American Express has been reporting to its shareholders each year in its 10K reports that debit cards are perceived as an

alternative to credit or charge cards and used in that manner?
A I don't remember the exact dates at which it started to say that, but that sounds about right, that around 2010 they started saying that, yes.
Q And are you aware that Discover started making a similar statement in its 10Ks a year before American Express did?
A I believe I've read something American Express said that that was the case. I haven't gone back and looked, but.
Q You have no reason to doubt that, do you?
A No.
Q Now, do you recall that when you testified in the Visa case, one of your conclusions was that debit was not properly included in the same relevant market as credit and charge cards?
A Yes.
Q And do you recall that one of the things you relied upon, one category of support for that conclusion, were internal documents that were produced by Visa and MasterCard in the course of the litigation?
A I don't recall they were specifically for that conclusion. As part of my overall analysis and as a basis for some of my conclusions, I certainly used internal documents, but, you know, sitting here 14 years later, I can't recall which documents went to which decisions.
Q I appreciate that. That's perfectly understandable.

Would you look in volume 1 at Defendant's Exhibit 733, please.

By the way, in the Visa case, was it the procedure that the experts put their direct testimony in in writing rather than providing it from the witness stand?

A That's correct.

Q So do you recognize this document, Defendant's Exhibit 733, as your written direct testimony, or I should say excerpts of your testimony from the Visa case?

A Yes.

Q Would you look, please, at paragraph 107, which begins at page 52.

Do you have that, sir?

A Yes, I do.

Q And you see that you state at 107: "Market data and association analyses."

By association you're referring to Visa and MasterCard?

A Yes, at the time they were associations.

Q "Market data and association analyses of consumer cardholding and use confirmed that debit cards are not sufficiently close substitutes for credit and chargecards to be considered in the same relevant market." You then cite a Visa study from December of '97, and then several lines further down you cite a MasterCard study reaching the same

finding, and then you cite another Visa study and quote from it, and then on the next page you cite a 1998 MasterCard survey about debit cards.

You see that you cited all of those internal Visa and MasterCard documents in support of the conclusion you state in the first sentence of 107?

A Yes, I do.

Q Now, in the report that you filed a few years later in the First Data case where you were on the side of the companies that were seeking to merge, do you recall that you cited the very same Visa and MasterCard documents to support your conclusion that debit was not in the same relevant market as credit and charge?

A Well, I don't recall it and I'm surprised I would have been saying that in that case, that it would have come up, because the issue was whether the debit market was narrower than just debit, but I would have to look. I certainly don't recall saying that.

Q All right. Why don't we go back to 7183 in the same volume, which is your report from First Data, DX-7183, and in particular I'd like you to look at paragraphs 141 and 143. They begin on the bottom of page 62.

Let's take a moment and look at those paragraphs. Tell me if you see that you cited the very same internal Visa and MasterCard documents in your report in First Data.

A (Perusing document.)

I'd have to go back and look and compare, but certainly looks like I'm citing documents that were cited earlier in my report.

Q I'll represent to you that they're the same documents that are cited in the Visa direct testimony. And in fact, in the First Data case, you testified that you relied on these internal network documents as probative because they're evidence about how the competitors think about competition in their market.

Does that sound like something you would have said, sir?

A Yes.

Just give me one second because you asked me a question about the documents, but also how I was using the documents here, and I just need to see. I'm not sure I agree with your characterization of how I was using them, but this is what threw me.

Q Why don't you look at, for example, the first sentence of paragraph 141 of 7183 you say: "As I testified in U.S. v. Visa, record evidence in that matter shows that the MasterCard, Visa and other industry analysts view MasterCard and Visa's debit cards as competing primarily with other debit cards as well as cash and checks."

A Yes. In that statement, I agree with your earlier

characterization that I was trying to show that they were not in the market with credit and chargecards. I don't think it's an accurate summary and that's why I was confused.

Q If I said that, I apologize. Credit and charge were not the market that were the focus of First Data. If I said that, I apologize.

You were here talking about debit competing primarily with other debit cards, as well as cash and checks, correct?

A Yes.

Q And citing the same, apparently the same Visa and MasterCard internal documents to support for your market conclusion in First Data as you had cited for a different purpose in the U.S. v. Visa case; is that fair?

A Well, at some fundamental level they're showing the same things, but the lessons I was drawing from them were speaking to different questions, but yes, I accept your representations that these are the same documents.

Q Okay. Now, my question to go back to where I was a minute ago, I asked if you recalled saying that the reason you relied upon these internal documents in the First Data case as being probative was because they were evidence of how the competitors think about competition in their market.

Does that sound like something you would have said?

A It sounds like something I could have said, yes.

Q Now, are you aware that there's a 2009 Visa study on spend share patterns that finds that at the top 10 merchants, there's been a shift to debit and Interlink as credit's share of volume and transactions declines? Are you aware of that study?

A I've certainly seen studies about shifts in the usage of credit and debit at different merchants. I'm not sure I'm recalling the specific study you've seen.

Q Why don't you look at Defendant's Exhibit 4583, it's in the second volume.

MR. CHESLER: I'm told this is designated as confidential by Visa, Your Honor.

Q Do you have 4583, sir?

A Yes.

Q Would you look at that and see if you can remember whether you're familiar with it? It's a 2009 Visa study on spend share patterns at the top 10 merchants.

A (Perusing document.)

I do see that. I don't recall this particular study. I certainly recalled seeing data on shares of credit and debit.

Q And you see that on the first page, that is the first page after the title page, I won't recite any of the numbers, but the sentence at the top of the page under the heading "Share By Product Top 10 Merchants" says: "There has been a

shift to debit and Interlink as credit's share of volume and transactions declines. Interlink has seen the highest growth relative to last year." And then it has numbers, which again I won't recite on the record.

Do you see that, sir?

A Yes.

MR. CHESLER: Your Honor, I offer 4583.

MR. CONRATH: No objection.

THE COURT: All right. Defense Exhibit 4583 is received in evidence.

(Defendant's Exhibit 4583 was received in evidence.)

BY MR. CHESLER:

Q Now, in the same year, there was an analysis done by MasterCard, and I want to know if you're familiar with this one, it's 4628. It's entitled "Converging Pressures Within the Payments Industry, a U.S. Card Payment's Perspective," from MasterCard Worldwide.

MR. CHESLER: Your Honor, there are some redactions in this document, but not at the portion that I'm going to ask the witness to look at.

THE COURT: So I can put it up?

MR. CHESLER: Can we?

No. I think this means no (indicating).

THE COURT: That does mean no.

MR. CHESLER: My staff is making a sign.

THE COURT: Yes, yes, yes.

BY MR. CHESLER:

Q Professor, do you have 4628 in front of you?

A Yes.

Q Do you recall this MasterCard study from 2009?

A Looking at it briefly, I -- it does look to me like something -- some of the words in it, I think it's something I looked at before there could be something related to this, but this does look familiar.

Q Would you look at the page with the Bates number 149 at the bottom? At the bottom of the page there's a section entitled "A Debit Disadvantage."

Do you see that?

A Yes.

Q And it says: "While the secular shift away from cash/check continues, consumer debit card usage, especially among younger consumers, continues to grow at the expense of credit putting pressure on issuer revenue streams. MasterCard's low debit penetration coupled with this new debit-centric consumer preference is resulting in significant debit share loss. Specifically consumers are showing a preference for PIN debit which merchants often encourage at the point of sale and online and to a lesser degree ACH for bill payments. At the same time on the processing side, regional PIN network rules are disadvantaging Maestro in

routing priority in the U.S." It goes on.

When you were doing your analysis of the market definition for this case, sir, did you make an effort to consider internal network documents talking about the way the networks saw competition in their market as you had done in both the U.S. v. Visa case and in the U.S. v. First Data case?

A Yes. I believe the first sentence you read to me, in fact, was one of the bases for what I testified to earlier today when I was indicating that there's been -- it says here a secular shift, that one of the things when consumers, now in the everyday sense of the word, when they're matching the payment instrument to the particular transaction, and one of the things that I mentioned is that younger people tend to use debit and older people tend to use credit and one of my bases for saying that is that MasterCard had indicated that there was a shift when it was saying especially among younger consumers.

Q Do you recall looking at a 2010 market analysis created by TNS Financial Services, an industry consultant, in connection with your market definition work here?

A I've looked at documents by TNS, but I'm assuming there are multiple documents, so I don't know the one you're -- the specific one you're talking about.

Q Let me ask you to look at Defendant's Exhibit 5376.

MR. CHESLER: Your Honor, I'd like to offer --

THE COURT: 4628.

MR. CHESLER: Yes, Your Honor.

THE COURT: Any objection to 4628?

MR. CONRATH: No objection.

THE COURT: Defense Exhibit 4628 is received in evidence.

MR. CHESLER: Thank you, Your Honor.

(Defendant's Exhibit 4628 was received in evidence.)

THE COURT: Next.

MR. CHESLER: 5376 is already in evidence, Your Honor.

THE COURT: Okay.

BY MR. CHESLER:

Q It's entitled "Consumer Card Strategies Research Programs State of the Card Market Report November 2010."

Is this one of the TNS reports with which you're familiar, sir?

A I would have to look at the report. At this point, just looking at the cover page, it -- I don't recollect this report.

Q Okay. Let me ask you to look at the page that ends '057 in the Bates number. It's a page entitled "Key findings in areas of focus."

Do you have that?

A Yes.

Q And you see the third bullet on that page says: "Debit cards are increasingly the payment of choice"?
A Yes.
Q "Debit card ownership increased from 64 percent in '08 to 71 percent in 2010 and the largest single payment method being replaced - credit cards. Among the 22 percent of consumers that are using debit cards more this year as a direct result of economic and financial concerns, 28 percent replaced credit card transactions, 19 replaced a combination of payments, 17 percent replaced checks, and 12 percent replaced cash. Of this group of consumers, 24 percent did not replace any other payments but increased activity on their debit card."

Did you take these data into account, sir, when you were doing your market definition exercise for this case?
A I don't recall the specific ones, but certainly the sorts of things they're talking about here are consistent with the market definitions I had. I just don't recall this particular study.
Q Let me show you another one. This is an analysis conducted by Discover.

MR. CHESLER: And Your Honor, this one is in evidence as well, it's Defendant's Exhibit 3836. It's entitled "2008 Attitudes and Usage Initial Learning and Application" from Discover.

BY MR. CHESLER:
Q I'd like you to look at the page that ends '949.
Do you have that page, sir?
A Yes, I do.
Q And you see the first bullet says: "Debit card use has dramatically increased from 2004 to 2008, particularly among revolvers who appear to be using debit cards to minimize use of credit."
Do you see that, sir?
A Yes, I do.
Q Did you take this document into account when you engaged in your market definition exercise in this case?
A I don't believe I took Discover document -- I don't recall this document. I did take into account other sources about the fact that people were revolving and having then very high cost of usage of credit and charge cards, or in this case they were revolving to credit cards, were switching to debit cards in response to those high costs.
Q Did you also consider the testimony of the various merchant witnesses who have testified in this case about the use of debit at their respective enterprises?
A I certainly reviewed merchant deposition testimony and some merchants' testimony at trial, though I haven't read through all of it on my own.
Q Do you recall which witness's testimony you reviewed

specifically with respect to the use of debit at their particular business or enterprise?
A No. I read various parts of the testimony about aspects of debit. I couldn't tell you which one said which particular things about how much it's used. I more recall, you know, I guess it's Best Buy doing a study of whether or not they could drop credit cards and it had to do with switching to debit and the ones about whether debit could be used, but I don't recall ones where they said -- I may well have read. I just don't recall them saying here's the percentage of debit at our merchant.
Q Did you consider the testimony of any of the American Express witnesses at trial about their views concerning competition that they face for their credit and charge products from them?
A No, I did not, that I can recollect.
Q I take it, sir, that it's your view that all of this evidence, these internal documents talking about substituting debit for credit or credit for debit, the merchants' testimony, the various studies we've looked at, whatever the American Express people have said, your view is that all of that is effectively trumped by the analysis you did which you testified about this morning; is that right?
A No.
Q It's not? Okay.

A Well, maybe it's how you're using the word "trumped." If you're asking the things you're citing, do I believe they overturned my analysis, I don't believe they do. I think they're a part that should be factored into the overall analysis.

Q All right. I appreciate that qualification, correction.

Do you recall that in your surrebuttal report in this case you conducted a regression analysis to isolate the effects of the infamous Durbin amendment?

A Yes.

Q And in fact, that regression analysis showed, did it not, that there was a shift from credit and charge card use to debit as a result of Durbin, in particular debit volume had increased by 16 percent while credit volume had decreased by 8 percent.

Do you recall that regression analysis?

A Yes. The way -- it wasn't about the -- exactly about what the amounts had done, but yes, I recall the analysis. I'm sure it's the one you're referring to.

Q Let me just make sure I have a clear record.

I didn't ask what it was about. I asked whether you did a regression, the regression was intended to isolate the effects of Durbin, and facts which the regression outputted, if that's the right verb, were included that debit volume increased by 16 percent while credit volume decreased by 8

percent.

Do you recall that?

A I don't recall it's precisely what it said, but I recall the study you're talking about.

Q You don't believe that it showed that there was an increase in debit volume of 16 percent and a decrease of credit volume by 8 percent?

A I believe it was showing those numbers meant something slightly different than what you're saying, yes. I may be miss-recollecting, but I believe it meant something different.

Q Would you look at in volume 1 DX-6540.

Do you have that, sir?

A Yes, I do.

Q Do you recognize this as a copy of your surrebuttal report in this case --

A Yes.

Q -- from July of 2013?

A I apologize for cutting you off.

Yes, I do recognize it.

Q Okay. Would you look at paragraph 342 which begins at page 195? Why don't you take a moment to look at that paragraph to yourself, and I'm particularly interested in the latter portion of the paragraph that appears on the upper half of 196.

A (Perusing document.)

I have reviewed it.

Q Now, would you agree that in the wake of the Durbin Amendment, as you testified this morning, you might expect that there would be incentives for merchants to switch to debit because of the lower transaction cost? There was at the same time, as you mention here, a large increase in issuer incentives to promote credit relative to debit, correct?

A That is correct.

Q And that's because the issuer's issuing bank would make more money on a credit transaction, particularly with the lowering of the interchange fees for debit, it was a lot more lucrative to the issuers if merchants processed transactions on credit, correct?

A That's correct.

Q So there was these kind of countervailing forces going on in the marketplace, merchants with an incentive to go to debit, issuers with an incentive to move the merchants to credit, correct?

A That's correct.

Q And it's in that context that you say in your report: "I find that in response to a large increase in issuers' incentives to promote credit relative to debit, credit volume decreased by 8 percent and debit volume increased by about 16.3 percent."

Correct?

A Yes.
Q And that was the result of the regression that you did to isolate the effects of the Durbin Amendment?
A So the part when you were asking this before where I said I thought you were talking about this study has to do with that this was isolating this, that this wasn't the general trend, the way I interpreted your question earlier I thought you were including that in, but I agree with the statement in my surrebuttal report.
Q Okay. Thank you. Let me move to a different but related topic.
You mentioned this morning on direct, it may have been this afternoon, I apologize if I've got the time of the day wrong, that you looked at loyalty card data for several retail merchants, data that was produced in the separate private litigation against American Express, correct?
A Yes, I did.
Q All right. Now, I'm going to be careful not to mention the numbers or the names, as you were very careful this morning with Mr. Conrath.
You used -- you looked at the data of four of the merchants that produced loyalty data, correct?
A For the -- the charts I was showing this morning, I only did three and I believe that's the full set of private plaintiffs for which we looked at data.

Q Okay. There were in fact data produced -- there were in fact data produced -- I used to be an English teacher. I'm supposed to get those right.

THE COURT: You got it right.

MR. CHESLER: Thank you. My children are terrified to split infinitives in my presence. They're damaged as a result.

THE COURT: I'll be very careful when I write the decision.

MR. CHESLER: That would be a great standard to adopt for many purposes.

BY MR. CHESLER:

Q When you looked at the data, you did not look at the data, or at least you didn't present in your report the data for all of the retail establishments that produced loyalty card data, did you?

A That's correct. In fact, I didn't look at the data for the other ones due to the expense.

Q Okay. So let me ask you to look at Defendant's Exhibit 7769 which I believe is similar to, but not quite the same as, your demonstrative number 45 from this morning.

A I'm sorry, could you repeat the number? I think I misheard you.

Q Yes, sir. 7769, it's in Volume 2.

A Thank you.

Q Do you have it, sir?
A Yes, I do.
Q Now, again I won't mention the name of the retailer, but one thing I would like to start with here is the title. The title of this chart as it appeared in your report was: "Distribution of - blank - loyalty customers by relative debit/credit use January 2010 to March 2011."
Correct?
A That is correct.
Q The same data are on that chart as are on page 45 of your demonstrative, correct?
A I'd have to look, but I mean, there's certainly supposed to be because this chart, as it should say in the notes version of my demonstrative, I think would cite to this figure as the source.
Q I believe the data are the same.
A Okay. It was intended to be.
Q I thought that was the intent, but the title's changed, correct? The title is now in your demonstrative "A high percentage of - blank - credit users do not use debit."
Right?
A That's correct. The demonstrative --
Q Did you make the decision to change the title from what was in your report to the one that was in your testimony this morning?

A Yes, I did.
Q Okay. Now, just to make sure we're on the same page and the record's clear about what is shown on this chart, the column all the way to the right that has a percentage number at the top and has 100 at the bottom, meaning all of the people in that column use only debit, correct?
A That's correct.
Q And the percentage number at the top is the percentage of the consumers you looked at for this compilation who only used debit during the relevant period of time at that merchant, correct?
A Sorry, you may have misspoken and, I apologize, I may have misheard. If you could just repeat the question.
Q Yes.
Is the column on the right-hand side of the chart that has 100 at the bottom and a percentage number at the top, is that the percentage of consumers you looked at for this compilation who used only debit cards during the relevant time period?
A Yes.
Q And the bar all the way to the left that has zero under it and a percentage at the top is the percentage of the consumers you looked at for this compilation who used only credit during the relevant time, correct?
A That's correct.

Q And then the smaller columns going from left to right in the middle of the chart are, represent the consumers who used both credit and charge during the relevant period of time, correct?
A Yes.
Q All right. And the -- so if I wanted to identify the universe of consumers you looked at who used credit cards either exclusively or some of the time, I would look at all of the bars from the left to the right except the last bar, correct?
A Yes, the one -- you're saying except for the bar with the 100 under it, that's correct.
Q Right. And if I were doing a SSNIP test using these data, if I was trying to determine who would likely switch away from credit in the face of a SSNIP, a price increase, I would look at the users who used credit in whole or in part, wouldn't I? That is I wouldn't look at the people who were only using credit for that purpose because they couldn't switch from credit to debit, right?
A I'm sorry, you're saying they couldn't switch from credit to debit because they hadn't been using credit, that's correct.
Q Okay.
A I mean, yes, they hadn't been using credit, that's correct.

Q Okay.
A Although I have to think about when you say use it in the SSNIP test in the sense that you're taking into account what this means for how consumers perceive different credit and chargecard -- different credit, charge and debit products, but I take your point there's certain calculations you might not use.
Q Let me restate the question so I think I can clear up your concern.

If I were interested in looking at consumers who were, to some degree, potentially switching from credit to debit cards during the relevant period of time in their transactions at this consumer, I would be looking at all of the bars except the last one on the right because those people were only using debit so they couldn't be switching from credit to debit; is that fair?
A So if you're thinking about starting at current prices and raising them, that would be fair, yes.
Q Now, I don't want to mention the numbers because of confidentiality, but would you agree with me that if you tried to calculate what percentage of the people who used credit were also using debit, the denominator of that fraction would be all of the percentages that appear at the top of all of the columns except the one all the way to the right and the numerator would be the percentages of the smaller bars in the

middle that are using some debit, correct?

A That's right. It would be -- to make sure we're on the same page, it would be the same as the calculation I had mentioned this morning except, you'd leave your number the same base, except the numerator in my calculation was zero and the numerator, if I understand correctly, in your calculation you're saying is everything between.

Q That's right.

So I would take all of the people in the middle here who used debit and credit and I'd put them over all the people who used credit to determine what percentage of the credit users at this retailer were using both credit and debit to some extent during the relevant time, correct?

A That's correct.

Q And if I did that, you can't tell me from eyeballing, I'll understand, but if I did that, wouldn't it show that more than half of the credit users were also using debit during the relevant period of time?

A Yes, because just the way, I won't try at this hour of the day, but this morning I testified that this was somewhere near a half, but less than half that were credit exclusive, so it follows that your number is bigger than a half.

Q Okay.

Now, is it correct that in choosing which consumers to include in this compilation, you included any consumer that

had made two plastic transactions or more during the relevant time period?
A I believe my recollection is that that's what this chart is showing, yes.
Q And do you agree with me, sir, that if you picked a higher threshold, if you picked a set of consumers who were using, who were doing more transactions in the relevant time than just two, the likelihood is that the percentage of that universe who used both credit and debit would go up?
A Yes.
Q I'd like you to look at Defendant's Exhibit 7761, please, in Volume 2.
Do you have that, sir?
A Yes, I do.
Q Okay. Now, this is an exhibit that I believe was prepared by Professor Bernheim, and on the first page it relates to loyalty customers of one particular retail establishment that's named up at the top.
Do you see that?
A Yes, I do.
Q And then on the second page similar data but for a different establishment, right?
A Yes.
Q And then on the third and the fourth and the fifth pages the data are compiled in a similar format, but each page is

for a different one of the merchants for which we had loyalty data, correct?
A Yes.
Q And do you understand that what Professor Bernheim did here was to look at the consumers at each of those establishments for a particular period of time, only those consumers who used credit at all, and calculate the percentage that used only credit or charge and the percentage that used credit, charge, and debit based upon a consumer set that had a threshold of 10 transactions during the relevant time rather than the two that you used? You understand that's what he did?
A Well, he's showing both of those, but the results reported in green, that's my understanding of what they are.
Q Okay, good. Yes, you're absolutely right about that.
And would you agree with me that in each one of these situations the percentage of consumers in Dr. Bernheim's set of people who used plastic more often than in your selection, who used both general purpose credit charge and debit, is higher than the percentage that you found in your set for the same consumers -- I'm sorry, the same retail establishments during the same period of time?
A Yes, that's what one would expect and that's what it shows.
Q Now, if you look at the last two pages of this exhibit

which relate to two merchants whose names I won't mention, but they're figures 11 and 12, those are the two merchants of the five that are in here for whom you did not compile your data based upon consumers that had done two plastic transactions in the relevant period, correct?
A That is correct.
Q And would you agree with me that the two merchants that you did not look at are the merchants who in Dr. Bernheim's compilation have the highest percentage of debit and credit users among the selected consumer population?
A I want to be clear when we're talking about the population of ones I did not look at.
I believe, I may be misremembering, my recollection is that there were eight merchants, that you have there were five, and so my staff picked three at random. It is true that these are the two of the five that Dr. Bernheim reported that I didn't look at it, but I don't think -- I worry it creates a misimpression if you say well, the only two I didn't look at are these because there's set I didn't look at that I believe was larger than this.
Q That was not the intent of my question, so let me restate.
You looked at three and they are the first three retailers identified in Exhibit 7761, correct?
A That's correct.

Q Dr. Bernheim looked at those three plus two more, correct?
A At least those, yes.
Q And he took a set of consumers that had done at least ten plastic transactions during that relevant time period, whereas you had looked at a set that had done at least two, correct?
A Yes.
Q And for every one of these establishments, his percentages of the people using both credit and debit at those establishments are higher than yours, correct?
A Percentage of people do both, yes.
Q And the two that have the highest percentages are the two that he looked at which were not among the three that you looked at, right?
A That's correct.

MR. CHESLER: Different topic, Your Honor.

Q I want to talk to you about your trust and estates -- I have a trust and estates department and when I hear T&E that's all I think about are lawyers who write my will.
A Well, if I can get some free advice.
Q No. We're not running a special summer sale here.

MR. CHESLER: I said that for the benefit of the clients, Your Honor.

As you pointed out earlier today, you know, if you cut your price to one merchant, you never know what's going to

be unleashed.

THE COURT: I would suggest you see an attorney in California about that.

THE WITNESS: I have an attorney in California who agrees with you.

Q Okay. Travel and entertainment, you talked about defining what you called I think a price discrimination market, correct?

A Yes.

Q Now, would you agree that price discrimination is a supplier's charging different prices to two customers after accounting for differences in the supplier's incremental costs of serving those two customers?

A Yes.

Q So a relevant metric for determining whether there's price discrimination is the supplier's margin, correct?

A Yes.

Q The revenue minus some cost element, right?

A Yes.

Q Now, I believe if you look at page 58 of your demonstratives from this morning, just for the record, that's Defendant's Exhibit -- Plaintiff's Exhibit 2702.

A Can I ask if you're going to ask me to look at something else simultaneously just as a matter of binder management?

Q Well, the answer is I don't know if I am or not. It

depends if you remember what I'm going to ask you. If not, I'll have to show you, but if I do, it will be from volume 1.

THE COURT: What page of the demonstrative?

MR. CHESLER: Page 58, Your Honor.

THE WITNESS: Sorry, if I could just have a minute to clean things up.

(Pause.)

THE WITNESS: Okay. I'm ready. Thank you.

Q So 58 is what you described as your alternative version of the test for travel and entertainment and you say it supports the same conclusion about your market definition, correct?

A Yes.

Q And as we just discussed about margin being a relevant metric, you did a margin calculation here.

MR. CHESLER: And, Your Honor, I can say the percentage. I won't say the underlying numbers that led to the calculation.

Q But the margin calculation that you did came to 17 percent, correct?

A Yes, it's rounded that is the number.

Q And this relates to your travel and entertainment market that you defined, correct?

A I want to be clear about one thing and what margin that is.

This is the appropriate margin to use when calculating that formula, that R over the R-plus-M formula. However, if you're thinking about the margin that the network is earning, the appropriate margin is the one I talked about before, the margin on the network fees, which for these purposes I assumed to be a hundred percent. The actual margin is lower than that, but yes, it's correct that there is a margin number here reported for that formula, that 17 percent.

Q And without identifying the particular percentages you used, let me see if I can describe and you can agree or disagree with how you got to 17 percent.

You took American Express's, what you identified as American Express's average travel and entertainment discount rate and you then subtracted from that American Express's average travel and entertainment rate that you estimated looking at its G&S business, an acquiring business, that it pays to issuing banks that issue American Express cards, or what would in the Visa world be called an interchange, correct?

A That's correct.

Q So you took the total discount rate and you subtracted essentially the interchange or your determination of what you thought the interchange was and you got a difference of a certain number of basis points between those two numbers, correct?

A Yes.
Q And then you took that difference and you put it over the average discount rate for travel and entertainment merchants that you started with and that got you to the 17 percent margin, correct?
A That's correct.
Q Okay. Now, that's for travel and entertainment.
You did a similar calculation for the general purpose credit and charge market that you defined, correct?
A That's correct.
Q And would you look at page 61 of your demonstrative, please.
A I'm on page 61.
Q And this is the chart that related to your alternative version of the test for price discrimination in the general market as opposed to the travel and entertainment market, correct?
A Yes, that's correct.
Q Okay. And again what you did here was you took an Amex average discount rate for all merchants and you deducted or subtracted from that an average rate for essentially the issuing part of the Amex business that you took in this case from a particular agreement with a particular issuing bank with which Amex does business, correct?
A That's correct.

Q And again, you took the first number, you subtracted the bank interchange and you got a certain number of basis points which you then put over the original discount rate and you derived a margin percentage, correct?

A That's correct.

Q And the margin percent you derived is the same 17 percent for the general purpose T&E market -- excuse me, for the general purpose market as it was for the T&E market?

A Yes, and as you say when you round it, yes, it's the same number.

Q Well, even if you, for whatever reason, decided not to pause on the fact that it's rounded, the number of basis point difference between these two analyses that you point to as evidence of price discrimination is 7 basis points, correct, the actual number of basis points?

A Yes, which if you look at that as a percentage of what the network fees are is a significant number. As I said before, in thinking about margins, I think the appropriate way if you're going to ask questions about this and how to turn it into percentage is you should be looking at the percentage margin on the base of the two-sided price which is what the network is collecting because what this -- as I said, this is an appropriate number and I stand by these because that's what goes into the threshold formula when you do the price increasing as a percentage of the merchant discounts, but if

you start using it to calculate things like, well, what's the network's margin on its fees, it's similar to the following.

Suppose you had a stockbroker and they sell you $10,000 worth of stock and they charge you a hundred dollars for it and their costs are $50. Well, if you calculated their margin here, you would be saying wait, their margin's almost nothing because using this method, which is completely appropriate for what I did in the market definition, you would say wait a minute, their revenues were $10,100 and they only earned $50. You see that's a tiny margin. However, if you view it appropriately which is they're providing middleman services, their revenues are the hundred dollars, which here would correspond to the network fees, and in that case their margin would be 50 percent.

So you've got to be careful what you're using the margin for and talking about these things being equal is 17 percent. The reason they're equal is mechanically is while the network charges a fair amount larger, so are the merchant discounts as reflecting those, and the fact that it's reflecting those is going to push the average down, but that's a different concept than asking what's margin as price minus cost divided by price.

Q Just to be sure we're clear, you did two alternative analyses in support of your price discrimination market definition. You compared a margin figure for the travel and

entertainment market. You did a margin figure for the general purpose market. Both margin figures in your alternative analysis came out to the same margin percentage, correct?

A Wait. Let's be clear when you say for my price discrimination analysis.

Based on the fact that a hypothetical monopolist clearly could price discriminate, I defined two separate markets and, as candidate markets, and then when I applied the numbers to do the test and come up with the threshold, I used the same margin number when I did the alternative version of the test in each of those two markets taking a percentage price increase of the merchant discount. That's a correct statement.

Q No, you didn't use the same margin number. Your calculations resulted in the same margin number of 17 percent on both of those charts for both of those alternative analyses, one for travel and entertainment, one for general purpose; isn't that correct, sir?

A That's correct.

Q And if you don't look at the percentage margin but, rather, the number of basis point difference between your travel and entertainment market and your general purpose market, it's 7 basis points, that is 7/100 of a penny on a dollar of charge volume, correct?

A That's correct.

Q Thank you.

Now, I'd like you to look at Defendant's Exhibit 6466, please. This is a table from your first report, so it will be in volume 1. It's 6466, which is your first report, page 314.

A And this one has all the pages?

Q This has all the pages, yes. At least it's supposed to.

A Reminds me of my doctoral dissertation which turned out to be missing four key pages.

Q But they were ultimately found.

A Well, it worked actually to my advantage because one of the examiners hadn't noticed, so then he would be too embarrassed to fail me.

I'm sorry, could you repeat the page number?

Q Yes, 314.

A Thank you.

Q It's table 16A entitled "Estimated Credit and Chargecard Premium 2008."

Do you see that, sir?

A Yes, I do.

Q Would you agree that one metric from which you can potentially draw conclusions about the competitiveness of a market is the profit margin that suppliers in that market earn?

A Yes, it's informative of that, yes.

Q And at least economic theory would say that the more competitive the lower the margin would be, correct?
A All else equal, yes.
Q In fact, if you look at the margin numbers in the gross margin column of this chart for all of the industries that are listed on the left from airlines all the way down to supermarkets, there's only one industry on that list that has a lower profit margin than the 17 percent that you calculated in your alternative analyses for the T&E and general purpose markets, correct?
A I would agree with the statement. I didn't check, but I'll take your representation that all of the numbers but one are bigger than 17 percent. I don't agree that this is an appropriate calculation to determine the relative profitability.
For example, if you go back to my calculations, talking about the network and what I believe is the appropriate basis, which is to say look at the two-sided -- your experts would say look at the two-sided price, what I was calling looking at the network fees, the margin based on that I think is much closer -- I used a hundred percent to be conservative, but I believe it's much closer to a hundred percent than it is to 17 percent, which would be bigger than these numbers.
Q And you're talking about this network fee portion of

American Express's discount rate, correct?
A Yeah, I'm talking about what American Express would be earning in its role as a network facilitating transactions.
Q But in fact, American Express charges a single merchant fee or discount rate to its merchants which includes not just the what you've identified as a network fee, but what you would also call an acquiring fee and what you would also call an interchange or an issuing fee, correct?
A It does charge that, yes.
Q Now, you also talked this morning about looking at contribution margin.
Do you recall that?
A Yes, I do.
Q And you said, I think you said this is a term that American Express uses to talk about what the value of business with a particular merchant is?
A A merchant or a merchant class, that was my recollection of testimony. It may have been Mr. McCurdy, I don't recall which witness at this point.
Q And these data that you used were from a database called GMAPS, correct?
A GMAPS is certainly an American Express database. I'd have to look at which one, but that sounds right.
Q Well, if you look at Defendant's Exhibit 6466, the same document we're in, at paragraph 321, which is at page 188.

Do you have that paragraph?
A Yes, I see that.
Q And you say beginning in the second sentence: "To determine whether these differences which are different discount rates, in discount rates represent price discrimination, I use American Express's GMAPS database in which Americas calculates a contribution margin for each merchant." And it goes on, correct?
A Yes.
Q Now, the GMAPS database does not, in fact, reflect profit that American Express earns by providing network services to merchants, does it?
A I believe that is part of what's in the GMAPS, but I may be misremembering.
Q I didn't say part. I said the numbers in the GMAPS database are not only profits that it makes from providing network services to merchants, but includes its issuing side revenue and issuing side cost, correct, in the same database?
A I believe that's a different question, but yes, I agree with that.
Q So when you were doing this analysis, you actually looked at a database that included revenues and costs from the American Express card business or issuing business, correct?
A Yes. When I was doing this particular exercise, I did.
Q And in fact, you're familiar with the difference between

economic profits and accounting profits for purposes of assessing market power, aren't you?
A Yes.
Q There are in fact, as far as you know, several well-known ways in which accounting profits diverge from economic profits?
A They certainly can, yes.
Q Do you agree that it's well-recognized among economists that accounting measures of profitability are ill-suited for gauging competitive intensity?
A They certainly can be and therefore relying on them generally without adjusting makes them ill-suited. There could be times when they're correct, but I agree caution is warranted.
Q And the various ways in which accounting profits diverge from economic profits is a, in your view, a serious issue because economic profits are the measure relevant to the assessment of market performance.
Wouldn't you agree with that?
A Yes, I stand by that statement, although there are certainly times that accounting profits are relevant as well for various features, but yes, I think economic profits are important.
Q And the GMAPS data that you looked at for this purpose do not reflect economic profits of American Express, do they?

A It's quite -- well, it depends on to what purpose you're putting them, but there's certainly things would be reported in GMAPS I think would diverge from how an economist would do the calculations, yes.

Q And in fact, they're not even GAAP accounting records, are they, that is the GMAPS data?

A I don't recall seeing that. My recollection is they're an internal database. I don't think it would have to be GAAP.

MR. CHESLER: I'd like to turn to -- Your Honor, I'm going to go to a different topic.

THE COURT: Would this be a good time to break for the day?

MR. CHESLER: If it's okay with Your Honor, yeah.

THE COURT: That would be fine with me.

I didn't mean anything by that.

MR. CHESLER: You might curb your enthusiasm, Your Honor.

THE COURT: No, let's go on.

For tomorrow morning, about how long will your cross continue?

MR. CHESLER: Your Honor, my best estimate is it would probably take us to the luncheon break.

THE COURT: Okay.

MR. CHESLER: I could be off a bit, but that's my best estimate.

THE COURT: All right. I'm just trying to figure out what comes next and when it arrives.

And then redirect?

MR. CONRATH: I might have an hour based on four more hours of cross-examination, something like that.

MR. CHESLER: So we'll be kind of at that tipping point.

THE COURT: We'll be at the witching moment.

I think we would do -- let's put it this way. If we go until three, then I would want to have three hours with the next witness, but if we go until 4:30, then we'll pack it in for the day and start the next morning.

Does that work for your next witness?

MR. CHESLER: Yes, Your Honor. So on the assumption that hopefully my estimate is reasonably close to right, if I go 'til about one, we take our normal hour, unless we're going to take a longer?

THE COURT: No.

MR. CHESLER: Then sounds like Mr. Conrath might go to about three-ish or so. Obviously he'll do whatever he does, but it sounds like for estimating purposes, we probably would bring our witness over here.

THE COURT: Well, yes, unless you have a lot of recross.

MR. CHESLER: Obviously I don't know, but I don't

think we can safely assume he should remain on the other side of the river and then we find that we've got several hours and nobody here to fill them.

THE COURT: Yes. So if he comes here midafternoon, then he can -- he doesn't have to sit in the courthouse. He can sit in the other facility, right?

MR. CHESLER: Yes.

THE COURT: There is another facility.

MR. CHESLER: Indeed there is, Your Honor.

THE COURT: And I'm sure you'll make him comfortable.

MR. CHESLER: He's paying the rent, Your Honor. He'll be comfortable.

THE COURT: Mr. Bright, if you want to be excused so that you can be with the boss, I would certainly understand that.

MR. BRIGHT: I look forward to those opportunities, Your Honor.

THE COURT: All right. So what we'll plan on is that the next witness will begin tomorrow afternoon, assuming that we finish with the Professor around midafternoon.

MR. CHESLER: Thank you, Your Honor.

MR. CONRATH: And I'll certainly be prepared to give a revised estimate of redirect after hearing all the cross and that may inform us as well.

THE COURT: And then we would go from three 'til six again with testimony tomorrow.

MR. CHESLER: Your Honor, may we have a, Mr. Conrath and I, have a very brief sidebar with you for one moment.

THE COURT: Sure.

(Sidebar held off the record and out of the hearing of the public.)

MR. CHESLER: I'm sorry, Your Honor, Mr. Barbur apparently has a housekeeping matter.

THE COURT: Yes.

MR. BARBUR: Yesterday during the testimony of Mr. Silverman, we had a demonstrative exhibit relating to Home Depot and Your Honor had asked for the underlying data. We now have that. I'm going to hand one copy to the Department of Justice and one copy to your clerk.

THE COURT: Okay. Thank you, very much. Thanks for following up.

Okay. Yes, sir?

MR. CONRATH: So I have one question. Your Honor asked that we provide Professor Katz with the testimony of Mr. Silverman, which we would be glad to do.

THE COURT: Is there an objection to that?

MR. CHESLER: No.

MR. CONRATH: And the second point is though the testimony of Professor Silverman, or Mr. Silverman, you know,

it's kind of long, and would you like me to direct him to some particular parts of it? I'd be glad to do that, but I'm not sure.

THE COURT: Well, I don't recall exactly which --

MR. CONRATH: The topics.

THE COURT: Which topic. Think about that and then you can direct him as you please.

MR. CONRATH: All right. Thank you.

THE COURT: I'm not --

MR. CONRATH: Fine. That's all I wanted.

THE COURT: It's not critical.

MR. CONRATH: Okay.

THE COURT: And it will put you to sleep probably, but maybe that's good.

MR. CONRATH: Thank you, Your Honor.

THE COURT: Okay. Is there anything else for tonight?

MR. BARBUR: No, Your Honor.

THE COURT: Anything else from you, sir?

MR. CONRATH: No, Your Honor.

THE COURT: All right. 9:00 tomorrow morning.

(Time noted: 6:02 p.m.)

(Whereupon, the proceedings were adjourned to July 30, 2014, at 9:00 a.m.)

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